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COMMERCIAL RELATIONS OF THE UNITED STATES.

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REPORTS

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FROM THE

CONSULS OF THE UNITED STATES

ON THE

COMMERCE, MANUFACTURES, ETC.,

OF THEIR

CONSULAR DISTRICTS.

No. 9.—July, 1881.

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PUBLISHED BY THE DEPARTMENT OF STATE, ACCORDING TO ACT OF CONGRESS.

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**CONSULAR REPORTS**  
ON  
**COMMERCE, MANUFACTURES, ETC.**

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JULY, 1881.

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**CONTINENT OF AMERICA.**

**EXPORTS FROM NEW BRUNSWICK TO THE UNITED STATES.**

*REPORT BY CONSUL WARNER, OF SAINT JOHN.*

The statement of exports to the United States for the first quarter of 1881 at this port shows an aggregate value of \$115,662.00; 62 per cent. of which was Maine lumber, sawed in this port. Nearly 80 per cent. of the lumber sent from this port to the United States during the quarter was Maine lumber. About 60 per cent. of the declared exports for the corresponding quarter last year was Maine lumber. Over 88 per cent. of the lumber going to the United States during same time was from Maine.

The declared exports at this port during the quarter ending March 31, 1881, show a falling off of over 32 per cent. compared with corresponding quarter last year.

The entire exports from this port for the quarter ending March 31, 1881, show a decrease from same quarter last year in value of 33 per cent.

If the lumbermen have a good Spring, and get their logs to market, this will be a busy year in the mills. Large contracts have been made for deals, which give the manufacturers confidence of a prosperous season. The contracts now amount to from 80,000,000 to 100,000,000 feet. The price is from \$9.50 to \$10.50 per thousand superficial feet, which will pay the manufacturer a good profit.

Citizens of the United States engaged in the manufacture of Maine lumber in this port do not anticipate as good a year as the last. The high price of logs, and the increase of production, resulting from the high price of lumber last year, will, they think, leave small margin for sawing this year.

D. B. WARNER,  
*Consul.*

UNITED STATES CONSULATE,  
*Saint John, N. B., April 12, 1881.*

1 JULY

**PILOT DUES AT CAIBARIEN, CUBA.***REPORT BY COMMERCIAL AGENT FORD.*

I have the honor to herewith call your attention to the within new tariff of pilotage which goes into effect the 1st of June, which you will see by reference to the old one is about 150 per cent. higher, and if continued for any length of time I fear will have the effect of driving away the larger proportion of vessels which call in here annually.

CLARENCE C. FORD,  
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,  
Caibarien, May 19, 1881.

**PORT OF SAN JUAN DE LOS REMEDIOS.**

*Tariff of Pilotage, free outside the banks and obligatory among them, for foreign vessels not assimilated, approved by H. M. the King in the royal decree of March 24, 1881.*

**INWARDS OR OUTWARDS.**

Under 80 tons.....	\$9 00
From 81 to 120 tons .....	11 50
From 121 to 150 tons .....	14 60
From 151 to 175 tons .....	14 60
From 176 to 200 tons .....	19 00
From 201 to 300 tons .....	23 50
From 301 to 500 tons .....	28 50
From 501 to 1,000 tons .....	32 25
Over 1,000 tons.....	38 50

*Tariff of Pilotage, free outside the banks and obligatory among them, for Spanish and foreign vessels assimilated.*

Under 80 tons.....	\$7 00
From 81 to 120 tons .....	9 00
From 121 to 150 tons .....	11 00
From 151 to 175 tons .....	13 00
From 176 to 200 tons .....	15 00
From 201 to 300 tons .....	19 00
From 301 to 500 tons .....	23 00
From 501 to 1,000 tons ....	26 00
Over 1,000 tons .....	31 00

**NOTICES.**

1st. According to the orders in force, the vessels not obliged to take pilot are those registering less than 80 tons and those employed exclusively in coasting trade, whatever be their tonnage, as well as those foreign vessels which by international treaty are assimilated in this case to the Spanish ones.

2d. The steamships that come in or go out the port employing their engines, excepting those employed in foreign trade of more than 500-horse power, will pay for pilotage, when they use it, one-third less than is established in the respective tariff, according to their tonnage and flag; it is understood that said deduction is to be made from the net amount remaining after discounting the amount for the pilot's boat.

3d. The sum established in the tariff is for pilotage inwards or outwards.

4th. Vessels that change place in the wharves for loading or unloading, or those that remove from one place to another between Key Frances and Caibarien, will pay the fourth of the pilotage marked out in the tariff for coming in, according to tonnage and flag.

5th. Vessels for moving to any other anchoring place on the coast inside Key Frances will pay two-thirds of the correspondent pilotage, according to their tonnage and flag.

6th. The pilotage fixed for coming in or going out is the same whether the vessel remains in Key Frances or proceeds to Caibarien.

7th. Pilotage will be calculated upon the total tonnage of the vessel.

8th. Vessels coming in or going out during the night will pay one-third more than is fixed in the tariff.

9th. If a vessel takes on board a pilot during the night and does not employ him until day, she will pay for his sojourn on board \$4.

Caibarien, 1st of June, 1881.

THE CAPTAIN OF THE PORT.

## CONDITION OF TRADE AT LA PAZ, MEXICO.

REPORT BY CONSUL TURNER.

Nothing of much interest has transpired in this Consular district since the date of my last dispatch.

Trade between this port and San Francisco seems to have nearly died out, and I see no reason to hope for any revival in the future. But one sail-vessel from San Francisco has arrived here since last August, and the monthly steamer brings very light freights. Of course, the receipts of the custom-house have correspondingly diminished, and since the 1st of January they have been much less than they were during the corresponding months of 1880.

There is nothing strange in all this when the cost of living and the prices paid for labor are taken into consideration, and I give below the retail prices of staple articles, which show that this Consular district is one of the most, if not the most, expensive localities in which to live on the continent:—

	Cents per pound.
Dry or jerked beef.....	25
Fresh beef .....	18
Flour.....	10
Potatoes .....	6 to 8
Coffee .....	30 to 37
Butter .....	50 to 75
Cheese.....	20 to 25
Sugar.....	20 to 25
Rice .....	7 to 10

The duty on preserved meats is 72 cents per kilogram, and on salt meats 24 cents per kilogram; so of course none can be imported, and salt beef and pork, hams, bacon, &c., are placed beyond our reach by these prohibitory duties.

Wages of laborers are from 75 cents to \$1.50 per day, and it will be readily seen that, at these prices, the laboring man can hardly earn a miserable subsistence.

La Paz has had a very good wharf, built at the expense of the government some fifteen years since; but the government would neither allow wharfage to be collected nor furnish funds for repairs, and a few days since it gave way, killing one man and severely injuring another. It is doubtful if it will be soon rebuilt, and in the future, vessels will be obliged to discharge into lighters as in old times.

DAVID TURNER,  
Consul.

UNITED STATES CONSULATE,  
La Paz, Mexico, April 20, 1881.

**ARGENTINE-ITALIAN INDUSTRIAL EXHIBITION.***REPORT BY CONSUL BAKER, OF BUENOS AYRES.*

[The articles exhibited at this exposition, it should be understood, are not Italian manufactures proper, but articles manufactured by the Italians residents in and citizens of the Argentine Republic, and may therefore be set down as Argentine manufactures.—*Note by the Department.*]

I deem it a matter of sufficient concern to the Government of the United States to mention that during the last month there has been open in this city an *exclusively* Italian industrial exposition, which has been a wonderful success, not merely in the display of specimens of machinery, fabrics, mechanical contrivances, and the useful and fine arts, but in the interest which the public has manifested in it since its inauguration.

The Italian colony of Buenos Ayres had intended to take an active part in the centennial exhibition which was projected to take place here last year; but when, owing to political troubles, that fell through, the idea of the present exposition was suggested and carried out. For this purpose committees were organized and money subscribed, and a commodious building, artistic in design and unique in its arrangements, was erected in the heart of the city, and the whole affair was carried out so quietly that but few were aware of what was going on. It was inaugurated on the 20th of March last, the President of the republic acting as "padrino" or godfather on the occasion, and the officers of the government, the diplomatic and consular corps, and a very large concourse of people being present to witness the opening. Whatever misgivings there may have been as to the ability of the Italian residents here, unassisted by any other nationality, to make a creditable display, they were at once all removed when the doors of the gaily-decked building were thrown open, and its contents, consisting entirely of the accumulated trophies of Italian invention, Italian industry, Italian mechanism, and Italian art, fabricated here on the river Plate, were submitted to public inspection. No more honorable thing could have happened to the Italian residents of Buenos Ayres, and no more promising thing—promising in the future development of manufactures and mechanical industries which it foretells—could have happened to the Argentine Republic.

I cannot, of course, in the limits of a report like this, undertake an enumeration of the various articles or even of the various classes of articles on exhibition; and yet nothing less than such an enumeration would do justice to the display. The exposition is divided into four grand departments, as follows:

1. Raw materials and produce.
2. Machinery for agricultural and manufacturing purposes, and mechanical inventions.
3. Manufactures and handicraft products generally.
4. Sculpture, painting, models, and the plastic arts in general.

**ITALIAN VS. AMERICAN MANUFACTURES IN THE ARGENTINE REPUBLIC.**

All these departments are well filled and attractive. My attention, however, in the frequent visits which I have made to the exposition, has been particularly directed to the displaying of manufactures and handicraft products, for the reason that the United States, as a manufactur-

ing nation, is now particularly interested in seeking abroad for new markets for the sale of the surplus products of its great industries. I have heretofore considered that the Argentine Republic was especially attractive, from a business point of view, to the American manufacturer, in offering a permanent and constantly increasing market for almost every class of manufactured articles; and I reached this conclusion from the fact that the Argentines, as a people, are neither apt at trades nor proficient in works requiring skill and precision. They despise all handicraft employments. They look with a species of contempt upon any work which demands manual labor. They educate their sons to be lawyers, doctors, and priests to such an extent that the supply has grown greater than the demand. Even the "gaucho" of the pampas, imitating the high-toned porteño of Buenos Ayres, is too proud or too lazy to perform any labor which cannot be accomplished on horseback—such as herding cattle or watching sheep which feed on the nutritious grasses of the country, without demanding any but the most casual attention. I have heretofore, in my reports, expressed the opinion that the only hope of the Argentine Republic ever becoming a manufacturing country was in the accession of skilled labor from Europe. But I believed the day was very remote when there would be any perceptible diminution in the demand for foreign manufactured articles. In the case of cottons and some other industries, where the raw material to work on is not produced in the country, this is no doubt still true; but aside from this, an examination of the articles displayed in the Italian exposition shows that the United States, in the placing of its manufactures here, is soon to have a new and formidable competitor in the Italian element which is now crowding to these shores by thousands and making its home in the Argentine Republic.

The classes of manufactures, judging from the samples on exhibition, which would seem especially to interfere with American, and, indeed, with the foreign trade generally, are the following, to wit: pianos, organs, billiard tables, piano-forte chords, all kinds of furniture, jewelry, crackers and biscuits, preserves, pickles, canned fruits, preserved meats, glassware of all kinds, bottles, mirrors, wines, liquors, bitters, ales, beer, flavoring extracts, soaps, starch, sugar, maccaroni, vermicelli, cheese, bacon, hams, side pork, sausages, bon-bons and confectionery, oils, glue, hats and caps of all kinds and styles, leather of every finish, harness, carriages, buggies, trunks, portmanteaus, traveling bags, boots and shoes, surgical instruments, carpenters' tools, drugs and chemicals, engraving on wood, stone, steel, and brass, fire-arms, breech-loading fowling-pieces, powder, snuff, cigars, prepared tobacco, agricultural implements, harvesters and separators, scales of every size and capacity, steam-engines, boilers, tiles, mosaic work, bells, clocks, stoneware, trusses of every description, perfumery, &c. The handsome display, in all these lines, of goods of exclusively Argentine make has given a great surprise to the thousands who during the last month have daily thronged the exposition building.

#### THE ITALIAN INDUSTRIAL EXHIBITION.

[From the Buenos Ayres Herald.]

We cannot but feel, in beginning what is intended as a description of this great triumph of industry and enterprise, which shall serve to convey a correct idea respecting the same to the minds of our readers abroad and those who, being here, have been prevented by any circumstance from going to see for themselves, that it were vain to attempt, within the compass of one, two, or three articles, to do justice to an exhibition embracing several thousand elaborately prepared things every one of which is

well worthy of a full description, and something more than a moderate amount of encomium. We may, nevertheless, mention such of the articles on exhibition in the different compartments of the elegant building which, with that exquisite taste that has ever characterized their nation, the Italians of Buenos Ayres or, more properly, those belonging to the "Unione Operai Italiani," have erected for the holding of the first exhibition of the kind that has been held in this country. The *locale* is divided into four spacious saloons and four pavilions, any one of which has all the appearance of a fancy-goods fair in some aristocratic quarter, where none but first-class articles find sale, and it is impossible, on entering, to advance more than a step or two at a time, the large variety of things claiming careful inspection being so great and so well worthy of more than a passing look that one is compelled to make a stand of from a few minutes to a quarter of an hour or more at every turn.

We would not have it thought that, in making mention of several of the different articles which have claimed our attention, we are making invidious, and possibly unjust distinctions; for it is quite possible that our attention may have been more attracted by many of the least meritorious of the goods on view, and it is again likely that in selecting some for present mention, because they have commended themselves to our notice as worthy of the same, we may be passing over others in every respect worthy, and, in many, more so, that we shall say nothing about. With this understanding, and in the assurance that the juries awarding the prizes will make ample compensation for any error or neglect of which we may be unwittingly guilty, we will proceed to give a brief description of some of the specialties we have seen.

In Pavilions A and B there are thirty-nine lots or groups, embracing goods of several descriptions, among which we may mention a varied assortment of mosaic works by Spin-di Brothers, which are equal to any we have seen from Europe. A table made of stone from the coasts of the Parana, by José Lepetina. A group, formed of yeso, representing a man giving a boy his first lesson in reading—a work which has attracted considerable attention and much favorable comment because of the chastity of design and excellence of workmanship displayed, and commanding the sincere admiration of artists through its perfection in every detail. This group, which is very properly placed in a prominent place in the pavilion, is the work of José Lorello. There are also, in the same place, other works of sculpture, which speak volumes of what may be done in that line when once the rich product of the quarries at the Azul are brought out in greater plenty, among which we may mention two elegantly-sculptured urns made by Constante Allegri, from Azul marble. Then there is a grand electric clock by Victor Chiabrandi, which, for neatness of workmanship and ingenuity of design, would do credit to any watchmaker in Geneva; there is a set of bells, by Juan Guglielmini, which are big enough and of a sufficiently orthodox shape and make to vie with the famous bells of Shandon, and certainly to encourage the development in this country of the beautiful and interesting though sadly neglected study of the music of the bells. Then there are delicacies for the table, embracing crackers and biscuits, preserves and jellies, together with confectionery, which would not reflect any discredit on Wotherspoon or Cross & Blackwell, and which, if they teach anything, point to fruitful sources of wealth in the Tigre and other parts where these industries might and ought to be established on a large scale, and where the millions of peaches, pears, apples, and quinces that are annually wasted there might be made to return thousands of golden sovereigns every year were it not for the lack of enterprise which prefers to let them run to waste. Again, there are articles of furniture, straw chairs, sofas and lounges, besides other articles of elegant design and great utility, presented by Sigrs. Pozzoli, Bignone, and Pastorino; there are specimens of exquisitely-designed stained and painted glass, plaster of Paris, marble, &c., and many other articles which would amply suffice to make, of the contents of this pavilion alone, an exhibition that would do high honor to any colony of foreigners in this republic.

In Pavilion C there is an immense assortment of table and dessert wines, liquors, bitters, ales and beers, and spirits, all of the purest quality and most palatable flavors, presented by Sigrs. Baccani Bros., Calatroni, Lagomarsino, Moretti, Mazzera, Pagano & Co., Fossati Bros., Morelli, Roleri, Scribani, Peirano, Fornara, Villa, and others, who have already established here large local connections, and who bid fair, ere long, to make for themselves a good export trade, especially in Argentine wines, which are now being produced of very good qualities and in quantities sufficient for exportation. In this same pavilion José Romani has a full assortment of preserved meats, which are neatly packed in tin cans, of excellent flavor and warranted to keep in any climate. G. Plorutti has a box containing several qualities of common and fine soaps. Fazzio & Co. have samples of starch. Luis Ruffini has a large assortment of cheese, some of which is very fine flavored and as rich as could be desired. Roverano Bros., of the famed Confiteria del Gas, have a magnificent assortment of bon-bons, chocolate-creams, sweets, conserves, liquors, and other specialties of the best possible qualities. Sigrs. Peluffo, the well-known florists, have a most valuable and varied assortment of seeds and roots. And last, but not least, Sigr. Poggi's splendid organ lifts its head above

all the surroundings, as it would the hearts of the listeners to its grandly solemn peals when, under the hand of an experienced player, it is made to interpret the inspirations of one of the old masters. One need to bear in mind, whilst looking at all these things, that they were all made in Buenos Ayres, and, as he does so, if there is the faintest feeling of patriotism and appreciation of merit in his bosom, his just pride grows apace with the admiration he is constrained to render to those who, from their distant home beyond the seas, have brought here for development, under the free blue sky of Argentina, so much genius and such brilliant talents.

In Pavilion D, Bartolomé Colombo exhibits a dexterously-contrived reaping-machine and two little carts for carrying the grain as it is cut down; J. B. Catone comes after with an assortment of articles made of tin; Pedro Quaglino has a new kind of plow, which is said to possess peculiarities of great value; Bianchetti and Bonaccio have a lot of weighing-machines which, in appearance, are very similar to Fairchild's; A. Rezzonico has a machine, of his own invention, for the making of chords for the piano-forte; J. Rocca & Co. have a large and very complete assortment of different kinds of oil, glue, &c.; Luis Bertolotti exhibits a lot of different qualities of sausage, and some sides of prime bacon; Bordone Bros., Piaci, and Delaneva exhibit a complete lot of glassware, including soda-water bottles, wine and water bottles, decanters, tumblers, wine glasses, tubes, &c.; and Camboni & Sons have a steam-engine of twenty-horse power, a collection of photographic views, and several iron bars to be devoted to various purposes; showing that, amid all the new enterprises demanding consideration, and luring to untrodden paths, in a country like this, there is still room for the development of the inventive genius, and that every branch of industry may here meet with ample encouragement and perhaps opportunities for its exercise which it might seek for in vain elsewhere.

Saloon I, which contains a number of glass cases and other fixtures to facilitate the proper display of the goods on exhibition is, certainly, one of the richest compartments in the building. In it are exhibited some of the choicest collections of jewelry we have ever seen, which for elegance of design, ingenuity of workmanship and richness of material, vie with the costliest of Parisian productions. It would be vain to attempt to describe the different articles forming these collections, which embrace almost everything that is generally made of gold, silver, and the precious metals, from watches and trinkets to richly-engraved pieces of plate, suitable for presentation; and expensively-jeweled sets which might contribute to the dowry of a duchess.

There are, however, some, among the many rich things, which admit of special mention, rather because of the originality of their design than for any other cause, and these, whilst we pass over very many more costly items, we may mention separately. For instance, there is a finger-ring made of steel with a large brilliant set in it. The effect of this combination is very taking, and the opaque setting rather enhances than takes from the brilliancy of the diamond. This is exhibited by Sig. Luis Rigillo, whose idea it is. Then there are single articles and whole sets of jewelry in tortoise shell, some of it gilt, and other delicately and elegantly carved. We should imagine that, as a new fashion, or for a change, this would take, though it might never get to be more highly prized than ivory or coral. Then there are a number of very finely-worked articles in hair, the elaborate workmanship of which possesses them of great merit; and a frame inclosing collections of curious medals presented by Sr. Rosario Grande, is of great interest. Santiago Pozzi, under No. 113, exhibits a stuffed deer, and a collection of stuffed animals of different kinds, very well worthy of notice; so also are two large frames with the most magnificent and splendidly preserved butterflies, bugs, moths, and beetles we have ever seen.

These are followed by a variety of articles which might more appropriately be classed among ornaments for the parlor table than among articles of general use; hence we will leave them, to say a few words of some of the more substantial and serviceable goods, and those that need to be made in larger quantities or numbers than the ones we have mentioned heretofore. In this connection we may mention a large assortment of straw, felt, and silk hats, of all kinds, from the wide-awake to the most fashionably-shaped stove-pipe, which are exhibited by Sigs. Anzi Trova & Co. and César Spinelli, and which do great credit to the enterprise of their manufacturers; a large collection of tanned hides, pieces of harness, solid leather trunks, and traveling bags, and boots and shoes (of which there is an immense variety), walking sticks and canes (all the produce of the country), very elaborately finished; also underclothing and embroidery, in great profusion and richness, finish the description of this hall; from which, wondering what can come next after so much has been seen, we step into Saloon II, in which there is a variety of perfectly-finished surgical instruments, by A. Bellazza; a complete assortment of carpenters' and other tools, by A. Fiocca Salvatore; and a large and very choice collection of paintings and engravings.

The part of the saloon in which the pictures are exhibited is literally covered with choice specimens in oil and water colors, representing an immense variety of subjects,

and all displaying points of beauty and artistic skill that are worthy of a far more detailed description than any we are in a position to bestow. Besides these, there are specimens of great merit in pencil and in Indian ink; and, on the whole, if Buenos Ayres had not a single artist but those whose works are on exhibition we should say she is far better provided in this respect than we ever imagined previous to the opening of the exhibition. It is well known, however, that there are, and it may reasonably be expected that there will, in the course of time, be many artists besides these, many of the best of whom may be looked for among the pupils of Sigr. Aguyari's class at the National College, some of whom have already shown unequivocal signs of the possession of genius which, under so talented a guide and experienced teacher, they cannot fail to develop with the happiest results. In this connection we may also mention the pupils of the girls' school of the S. U. Operai Italiani, and those of the Società Unione é Benevolenza, who have on exhibition a number of drawings which reflect the greatest credit upon all concerned. And the photographic specimens from different studios in this city, which are as near perfection as any one could desire, being, as near as possible, equal to the world-renowned photographs of Mora, which are, confessedly, the best ever produced. On the center-tables in this saloon, and in glass cases advantageously displayed on the same, is a variety of drugs, specifics, powders, ointments, pieces of embroidery and sewed work, and an immense number of small goods, many of which possess qualities of the greatest merit and use, which are certain to commend themselves to the appreciation of the juries. The same may be said of the magnificent display of paintings in the saloon which is specially set apart for the exhibition of the best specimens in oil or water-colors; among which we notice several superb paintings by the well-known artists, Sigrs. Aguyari, Pollinini, Gattinoni, Albertazzi, Carpi, Luzzi, Galli, Pessadori, and others, which are worthy of very special mention. In this saloon Sigr. Juan Gotuzzo exhibits a large variety of raised letters and inscriptions suitable for sign-boards. Dr. Bartolazzi has a variety of ingenious mechanical inventions of his own. B. Rapallo has a large variety of engravings on brass, the workmanship and finish of which we have never seen exceeded. A. Cossi, J. Gibellino, L. Alfonso, B. Rattoni, R. Caprio, C. Poggi, and R. Tranco contribute a large and highly interesting variety of mechanical works and inventions, which display a high order of genius and a degree of talent which we may hope, before long, to see very largely and advantageously developed in supplying the growing necessities of the country, and aiding in the utilization of its vast resources. Agustin Magaldi has a breech-loading gun, and Isidro Alvisio a doubled-barreled fowling-piece, both of which are constructed on new and apparently very commendable principles.

Then the gunpowder, from the very finest sporting and torpedo qualities to the coarse-grained artillery powder, every grain of which is the size of a hazel-nut, which is exhibited by A. Fumagalli and N. Pierotti, shows how the demands of war could be supplied without traveling far out of the country. But, among the most interesting, as well as the most promising of the things exhibited we may mention several pounds of floss silk, and a large quantity of cocoons of silk, and a large branch of a mulberry tree literally covered with the same, which are the property of Srs. Duri and Celotti, Cab. Stampa, Grippa, and Invernizzi and Toschini. The cocoons are about the size of a pigeon's egg, and the large quantities of them that are produced could not be more encouraging for the enterprising promoters of this comparatively new and very promising industry. A sample of dyed cotton, exhibited at Antonio Riggo; specimens of different minerals, by J. A. Rocca, and A. Riggo; a variety of salts, by Sr. Roncoroni, and a large assortment of different qualities of stuff and tobacco, by Srs. Muzzio, Gallino and Rezzonico and others, also show how and by whom some of the richest sources of wealth in the country are being worked, and to whom it is due, perhaps, that these are not still among the many undiscovered treasures that are doubtless awaiting the advance of industry to add to the known resources of the republic.

In the Saloon II, the principal articles claiming attention are a piano by Luis Asti which, we have heard it stated, is equal to any of the same kind of pianos (upright) which are imported; an iron bed that almost equals Max Adeler's patent step-ladder—which could be turned into either a couch or an ironing-table at, and sometimes before, the convenience of the user—inasmuch as it may be converted into a table and arm-chairs; a complete set of bed-room furniture of very exquisite workmanship; a billiard-table, and a splendid bookcase made of several different kinds of native wood, which, with a walnut wardrobe with mirror doors, are two of the handsomest pieces of furniture, we venture to say, in the country, and certainly as rich and as handsome as the most fastidious taste could desire.

Besides these there are a variety of most luxuriously-constructed lounges and couches, some of them arranged so as to hold a book or paper to facilitate reading; sofas, easy-chairs, cradles, parlor seats, and articles of furniture innumerable, the names of the makers of which are too numerous for present mention, but may all be seen in the very comprehensive and complete catalogue of the goods on exhibition, which may be had in Italian and Spanish, at the ticket office of the exhibition building.

In conclusion, we have to acknowledge how very incomplete this report is, and how many things have been omitted which, had they come under our notice singly, would not have failed to call forth a due measure of merited praise. We have endeavored, however, to give our readers abroad as fair an idea as possible of what this first exhibition is, and we leave all further comment, and all the favorable inferences which may be drawn from what we have said to the making of our ever-indulgent readers.

It will be borne in mind that from time immemorial all the above-mentioned manufactures have been brought into this country from abroad—the annual tables of imports being in great part made up of these very articles; and it may well be believed that a new era is dawning upon the Argentine nation when it has at last, through the accession of foreign skill and handcraft reached the point of not only being able to produce these objects of prime necessity itself, but of producing them with such skill, workmanship, and finish that they would attract attention in any market in the world.

To at once put the Argentine Republic in the class of manufacturing nations, or to predict any immediate falling off in the bulk of the importation of foreign manufactures on account of this very creditable exposition, would be absurd; but it shows that the industry of the country is becoming more diversified and is finding new fields for profitable employment; it shows that “home manufactures” have at last established a foothold among the people, and the tendency will be, as in our own most notable case, to strengthen, increase, and spread. This tendency, the government, so far as it is able, is striving to confirm and develop, by means of bounties to new industries, by discriminating protecting duties, and by permitting machinery intended for manufacturing purposes to pass through the customs-house free of expense.

There is hope that the Argentine Republic in the not very distant future will not be so dependent upon other nations; and that hope originates in what the immigrants from Italy are accomplishing for the advancement of the country. They are the people who are doing its work. You will find them filling every department of manual labor. They are the “peons” of the republic—its day-laborers, its hod-carriers, its brick-makers, its artisans, its skilled workmen, its handicraftsmen, its operatives in manufacturing establishments. It is the Italians, sojourning in the country, and not the Argentines, who are developing the marvelous resources of the River Plate, building its cities, and opening its waste places to the busy hand of industry. As they advance the indolent “gaucho” is being shoved further and further back into the pampa. The Italians now number about one-half of the population of Buenos Ayres and probably exceed a half a million of souls in the entire republic. And the news of the thrift and success which have attended those who have already made their homes here is bringing out thousands of additional immigrants from the provinces of Piedmont, Liguria, Lombardy, Tuscany, the Neapolitan States, Sicily, and Venicia by every steamer which comes from the Mediterranean.

I may add, in conclusion, that the present Argentine national government, alive to everything which indicates material progress in the Argentine Republic, is so agreeably impressed with the great success of this first attempt to display the manufactures of the country—albeit it only represents what the Italian element is accomplishing—that President Roca has at the public expense ordered the distribution of gold and silver medals and diplomas to the most deserving exhibitors.

E. L. BAKER,  
*Consul.*

UNITED STATES CONSULATE,  
*Buenos Ayres, May 5, 1881.*

**THE GATHERING OF RUBBER IN COLOMBIA.***REPORT BY CONSUL SMITH, OF CARTHAGENA.*

In this country the rubber hunters have the wasteful custom of cutting down every rubber tree from which they extract the rubber instead of tapping them. For this reason all the rubber trees near the rivers have been destroyed years since, and the rubber hunters have now to go five days or more journey into the forests, crossings wamps and mountains, before they can find the rubber, and bring it out on their backs over these rough trails. Each succeeding year the quantity of rubber gathered is lessened. Unless the people begin planting rubber trees this trade will become a thing of the past. It has been a matter of surprise that the Colombian Government does not carry into effect its regulations against the further destruction of one of its most valuable forest trees. The importance of the rubber tree in connection with the many and useful purposes to which it is now applied can hardly be estimated. The attention of the planters of this country has never been turned to the cultivation of the rubber tree. A good chance for American investment exists in this direction. A plantation of rubber trees would prove a more valuable source of profit than that of any other. There are places on the Sinu River where rubber trees will grow from eight to ten inches in diameter in three or four years from planting of the seed. The trees require but little attention, and begin to give returns sooner than most any other tree. The trees which yield the largest supply of rubber flourish along the banks of the Sinu and Aslato Rivers.

The rubber hunters, before entering the woods, provide themselves with guns, ammunition, flour, salt, and tobacco. The flour is made from plantains, which are cut into slices, dried, and ground, and is generally mixed with corn-meal. This flour will keep sweet for months even in this climate. I have eaten "bolls" made of this flour which has been in camp over six months, and have found it quite palatable. For meat the hunters depend upon the game they can kill.

A roof of palm trees is quickly made, and every man starts out with his gun and *machete*, each one in a different direction and alone, hunting for rubber and game. As soon as one finds a rubber tree he cleans a space around the trunk, cutting away all vines, underbrush, &c., and marches on again in search of more rubber trees, not returning to camp until night. According to the immemorial custom, a tree belongs to him who has cut around it. The hunt is continued until all the trees in the vicinity of the camp are thus secured. Then begins the work of gathering the rubber. A hole is dug in the ground near the rubber tree, unless some other party is encamped near, in which case the holes are dug near the camp. The bark of the tree is first hacked with a *machete* as high as a man can reach, the cuts being made in form of a V, and the milk (sap) collected as it exudes, and put into the hole which has been dug for it.

After the milk ceases to flow from the cuts a pile of wood or brush is made at the foot of the tree and the tree is chopped down, the branches keeping one end of the tree off the ground, and the piles of wood at the foot of the tree doing the same for the other end. Thus the trunk is suspended. The hunter, after carefully placing large leaves on the ground under the tree, proceeds to cut gashes in the bark of the

tree throughout its whole length. The milk is collected from the tree and from the leaves placed under it, and added to the milk first collected. The sap, when it first exudes from the tree, is as white as milk and about as thick as cream; but it soon turns black on exposure to air and light, if not properly watched and cared for. The quantity of milk which is put into one hole depends not only on the size of the trees and their distance apart, but also on the strength of the man who is to carry the rubber from camp to the river and the track and trail he must carry it over. As soon as a hole has all the milk a hunter intends to put into it he coagulates the rubber, by adding some substance, such as the root of "*mechvacan*," by hard soap, &c., and these substances cause the milk to coagulate so fast as to prevent escape of the water which is always present in the fresh sap; and as the rubber and water will not mix, a piece of rubber coagulated this way is full of small cells containing water. Of course a piece of rubber full of holes is not as valuable as a piece of homogeneous rubber. For this reason Carthagena rubber is worth less than Para rubber. I have seen the rubber of this country made perfectly homogeneous, clear and transparent as amber. It costs no more to make such rubber than to make it full of holes, water, and dirt. It also costs no more to "pack" one pound of such rubber out of the woods than to pack one-half pound of porous rubber with its half pound of water and dirt.

As soon as all the rubber trees are cut down and the rubber coagulated, the pieces are strapped on the backs of the hunters by thongs of bark, carried by them out to the bank of the river, and brought to market by canoe or raft.

The value of the rubber exported for the year ending December 31, 1880, was \$335,113.24; an increase over the previous year, due to the fact of the recent high price of the product. Of this amount the United States bought to the value of \$238,393.24.

There are yet many square miles of rubber trees that have never been touched; but access to these valuable forests is very difficult.

EDMUND W. P. SMITH,  
Consul.

UNITED STATES CONSULATE,  
Carthagena, June 4, 1881.

## CONTINENT OF ASIA.

### INCREASED CONSUMPTION OF KEROSENE OIL IN CEYLON.

REPORT BY CONSUL MOREY.

Referring to the subject of American products and their coming to Ceylon, but appearing in the statistics of imports as arriving from other countries, my attention has lately been directed to the increased consumption of kerosene oil, and to the augmentation of imports from Bombay of that article, which seems to be coming into more general use, and to a considerable extent supplementing cocoanut oil as an illuminator.

Ten years ago the amount of kerosene imported here would not have exceeded 1,000 gallons per annum, all of which came from Great Britain; whereas in 1879, there were 50,000 gallons imported, and in 1880, 56,000 gallons, nearly all coming from Bombay and finding a ready sale at

fairly profitable rates, thereby demonstrating the fact that the petroleum men of our country may capture and hold this rapidly-expanding market for their commodity if they choose to do so.

It will probably be said by those who are interested in the trade that 56,000 gallons per annum is too small a quantity for them to operate on, to which I can only reply that while for years kerosene was imported here in small quantities and sold at a high price, very few people used it, and only one in a thousand of the inhabitants perhaps were aware of there being such an illuminator in the world.

An overstocked market in Bombay, however, led to its being put down in Colombo at something below a famine price, when forthwith it came largely into use, and the consumption is increasing marvelously.

The present retail price is \$2.50, gold, per case, or 25 cents per gallon, which is about as low as it can be brought here from Bombay and sold at a profit; whereas, were 12,000 to 15,000 cases sent here direct and controlled by one firm, the price could be lowered to a figure that would still further stimulate consumption, and increase the demand finally to at least 30,000 to 40,000 cases a year.

I should say there would be no difficulty about sending 15,000 cases here directly by a ship bound to Bombay, Calcutta, or even the Straits of Java, as Ceylon's geographical position would easily admit of such a vessel calling at Colombo and landing a portion of her cargo, and the move would not only result in an individual profit, but the operation would go further towards lessening the balance of trade now so greatly against us than any other I can think of, for we are more likely to recover a considerable portion of the \$1,000,000 that American importers expend here yearly, by the sale to the Ceylonese of kerosene, than in any other way, as it is in my judgment the only American commodity at present in which we can compete successfully with the old established importations from Europe.

W. MOREY,  
*Consul.*

UNITED STATES CONSULATE,  
*Ceylon, May 11, 1881.*

## PRIMITIVE METHODS IN THE OLD AND NEW WORLDS.

REPORT BY CONSUL SCRUGGS, OF CANTON, CHINA.

The points of identity between the artistic forms of peoples living in countries widely separate, under circumstances diverse, and often unconscious of each other's existence, are sometimes very striking. Perhaps they are the more so because generally thought to be exceptional. The mummies of Peru and of Egypt are familiar examples. So of the sepulchral mounds of the Ohio and Tennessee Valleys and those in many parts of China. So, too, of the fragments of pottery exhumed from the ruins of an extinct civilization in Central America and those found in some parts of Central and Southern Asia.

My personal observations in China lead me to suspect that such identities, in forms and appliances of art, are much more numerous than is generally supposed. Nor are they confined, as some suppose, to pre-historic periods. Take the common hand-loom, for example. It has been in common use in China from time immemorial. And yet, as respects mechanical form and appliances, it is identical with that used in

Eastern Tennessee and Western North Carolina. Or, in other words, it is precisely what our Colonial ancestors used in the Atlantic settlements nearly three centuries ago. I have been unable to detect the slightest difference, except as to the style and finish of workmanship. There is the same system of beams and treadle levers; the same complicated gearing for opening the web to receive the woof; the same distending braces for preserving the uniform width of the fabric; the same swinging baton, with reed or sley of bamboo splits, for driving the woof; the same loaded shuttle, with movable spool; the same parallel cylinders, one for giving off the web, the other for receiving the newly-made cloth. All the silk fabrics, including the finest satins of Chinese manufacture, are woven on these primitive looms; and it will probably be a full half century to come before any other method will be even considered, much less adopted, by this conservative people.

Our pioneer ancestors probably inherited this rude contrivance from their European progenitors. But where did the Chinese obtain it? There is not even a reasonable conjecture that it had either a European origin in China or a Chinese origin in Europe.

It is generally known to educated men that the notarial instrument still in use in our common schools is nearly identical with the *abacus* of the old Romans. That may be accounted for. We owe much of our civilization to the land of the Cæsars. But how do we account for the fact that this arithmetical contrivance has been in common use in China for at least twenty-two centuries? We can hardly assume that it had a common origin with the two peoples, because they had no knowledge of each other's existence before the time of Justinian. Moreover, those adventurous monks who stole the silk cocoons and conveyed them to the Roman Emperor in bamboo walking sticks were surprised beyond measure to see this instrument in common use among a people then unknown to the world. Now, if we substitute a series of knotted threads for the delicate wires and polished wooden or ivory bulbs of the *abacus*, we have a near approximation to the arithmetical contrivance of the ancient Peruvians. The principle is exactly the same.

Every one who has traveled in South America is acquainted with the Quienchu method of spinning cotton and hemp. It may be witnessed almost anywhere in the Andes. A small tapering spindle with a large rim or stay, which is likewise the balance wheel, is the only machinery used. The motive power is the thumb and forefinger of the right hand, the other hand being the distaff. The Indian woman of the plateaus will thus spin and reel her household fabrics as she trips along, barefoot and merrily, to some neighboring parish or market town. I was quite astonished when I first witnessed precisely the same thing in one of the interior districts of China. There was not the slightest difference. The identity was perfect both as to the contrivance itself and the dexterous mode of operating it. That the aborigines of the Andes did not get this from their Spanish conquerors is well known, nor could they have obtained it from the Chinese, and it is less probable still that the Chinese should have obtained it from them.

It is generally admitted, I believe, by those who have paid much attention to the subject that the manufacture and uses of paper, as also the printer's art was invented by our ancestors of Northern Europe several centuries after it had been in common use in China. And yet there has never been a suspicion, at least so far as I know, that Faust and Guttenberg received any hints from China. They were probably not aware that such a people existed.

Our European ancestors got the mariner's compass from the Arabs,

who claim its invention. But the magnetic needle, or something corresponding to it, had been in use among the Chinese centuries before the Arab and the Celestial were aware of each other's existence.

In the upper valley of the Yantsze, in a locality unfrequented by foreigners, I once saw a rustic making a tub. The process was identical with that witnessed many times in the mountain districts of Eastern Tennessee, and the mechanical appliances and implements, however dissimilar in appearance, were exactly the same as to principle. The only real difference was that the Tennessean used his native cedar and white oak, whereas the Chinaman made everything—staves, head piece, hoops, and all—of his native bamboo.

It was near the same place that I saw some Chinese peasants making rope by a process, and with appliances familiar to every one who has ever visited the mountain districts of Virginia and Tennessee. There was the same system of rudely constructed cranks, with spindle points passing through a perforated board; thus securing uniformity of revolution, whereby the strands were twisted preparatory to plaiting. At the opposite end was the single crank or windlass, to the spindle of which the diverging strands were fastened. It was in like manner secured to an upright post set in a heavy slab or log; one end resting upon ground pulleys, the other dragging heavily on the ground, so as to keep the strands well distended. Then there was the same three-pronged stick, used by the plaiter for adjusting the plait at the proper angle; and when the rope was finished, it was in like manner drawn rapidly and tightly across a convenient post or sapling to prevent it from curling into knots or "kinks." The same process and the same appliances might have been witnessed among the same early tobacco planters of Virginia in Queen Elizabeth's time.

The mode of thrashing and winnowing grain in the agricultural districts of China, is precisely that still in use in some of the remote mountain counties of Western North Carolina. The flail is nearly identical. The process of separating the grain from the chaff is precisely the same. There is the same circular sieve suspended from the tops of three wooden sticks securely braced against each other so as to form a kind of tripod. The sieve is oscillated by two small boys, by means of ropes fastened to the opposite sides. The wind blasts are made by swinging a sheet of cloth in a semicircle, two stalwart men holding opposite upper corners and sides.

These are only a few of the many coincidences that have fallen under my personal observation. Doubtless they seem very trivial, and if this dispatch should receive more than a hasty glance, and the usual acknowledgment, unaccompanied by an intimation that its place in the archives of the Department might be occupied by papers of more practical interest, I shall be somewhat disappointed. Nevertheless to my mind, they are not without significance. On the contrary, they are, as I conceive, very little less suggestive than those belonging to a prehistoric age. And we know that such identities, in the external forms of art, when discovered by some antiquary, amid the ruins of extinct civilization, never fail to excite discussion. One class of inquirers, reasoning inductively, have no difficulty in reaching the conclusion that all such identities in art had a common origin in Asia Minor. Another class, reasoning inductively, as easily reach just the opposite conclusion, namely, that man is indigenous to the soil he inhabits. But we know that nothing has been proven on either side beyond the fact (admitted in the premises of both) that different races and peoples, however diverse as to territory and civilization, possess much in common. Nor does an

intelligent belief in the unity of the human race necessarily presuppose the acceptance of either theory here alluded to. For the advocates of both may unite in the conclusion that there exists a common source of inspiration, peculiar to no one race or locality, and which operates by fixed and uniform laws throughout the entire realm of mind, whether in China or North America, whether in Palestine or Peru, and whether in year 1881 or thousands of years before.

WILLIAM L. SCRUGGS,  
*Consul.*

UNITED STATES CONSULATE,  
*Canton, May 2, 1881.*

### OPIMUM IN CHINA.

*REPORT BY CONSUL SMITHERS, OF CHINKIANG.*

During my short residence in China, a country where everything is exceedingly novel to the stranger, I have not attempted to write upon subjects which have often appeared in the reports of others, whose abilities and opportunities for observation were so much greater than my own. But a brief report, at the present time, upon the opium trade at Chinkiang, and the cultivation of the poppy in districts bordering upon the Yangtze, may possibly be of interest, and is herewith respectfully submitted.

By the last trade reports of the imperial maritime customs of China, which may be considered as reliable, it appears that during the year 1879 the imports of opium at Chinkiang amounted to 11,097 piculs, valued at \$9,482,680, being, as the commissioner of customs states, nearly 60 per cent. of all foreign imports for that year, and showing that this port ranks next to Shanghai as a distributing center of the drug. And in addition to the large consumption of foreign opium by all classes of Chinese, which the annual returns show to be steadily increasing, the quantity of the native variety produced in some provinces is very considerable, notwithstanding the cultivation of the poppy and the manufacture of opium has long since been a penal offence. It is reported that as much as 200 piculs or chests per month reach this port from the province of Anhui, not far distant from the city of Nanking, where large districts are under cultivation, and that at Nanking the native drug has almost entirely supplanted the foreign; whereas in the more northern provinces, situated nearer to Peking, where the restrictive measures of the government have been of late more vigorously enforced, the cultivation of the poppy has been, in a great measure, suppressed.

During the year 1877, the British Government sent a mission to Yunnan, in Central China, composed of three intelligent gentlemen, who were instructed to report upon the geographical, commercial, and political character of the country through which they passed. From the very able report of Mr. Davenport, one of the delegates, the following remarks upon opium cultivation are extracted:

Although, as stated above, opium was growing all along our route, from our first entry into Szechuen until we arrived at Momein, while in Yunnan, it was to be seen not only outside but inside the city walls, yet its cultivation is strictly prohibited in the current editions of the penal code. In an edition published at Peking by the Chinese Government so lately as the year 1871, it is laid down that, in cases where foreigners bring opium to China for the purpose of sale, the principal offenders shall

be sentenced to immediate decapitation, and the accessories to immediate strangulation, the sentence to be carried out by the foreign head men under the supervision of the Chinese local authority, who will receive his instructions from the governor-general or governor, after the latter shall have satisfied himself by examination of the personal identity of the offenders. With regard to the growers in the interior, such evil-disposed persons planting the poppy and manufacturing opium from the juice are, if the quantity amounts to 500 liang (about 30 pounds avdp.) to be sentenced to strangulation, but the carrying out of the sentence to be deferred, the accessories to be sentenced to military servitude for life at distant and pestilential frontiers; the landlords having a guilty knowledge, to military servitude at distant frontiers, together with the confiscation of the misused land, while the neighbors and constables have to undergo 100 blows each from the heavy bambs for not reporting the offence to the authorities. Mandarins convicted of smoking are forever deprived of their position in the service and banished to Tartary, while the unhappy eunich caught smoking within the precincts of the palace is to be sentenced to wear the congue (a wooden collar weighing 33½ pounds avdp.) for the rest of his natural life at the most distant and pestilential frontiers, under the custody of the local officers, not being pardoned even when a general act of grace has been issued by the Emperor.

At the close of the last century the total export of opium from India scarcely reached 5,000 chests. During the year now under review, 83,000 chests were imported into China, valued at about \$50,000,000, a sum representing very nearly the value of all the tea exported for the same period. That the most eminent statesmen at Peking should desire to curtail or prevent altogether the importation of foreign opium into China, is not surprising, considering the great injury it has inflicted upon the moral and physical well-being of the people, as well as upon the finances of the country; but their efforts in this direction, it must be admitted, have been a complete failure, and form one of the most curious and instructive chapters in Chinese history.

E. J. SMITHERS,  
*Consul.*

UNITED STATES CONSULATE,  
*Chinkiang, May 2, 1881.*

## THE FOOD OF THE JAPANESE PEOPLE.

REPORT BY CONSUL-GENERAL VAN BUREN, OF YOKAHAMA.

All the civilized members of the human family inhabiting America, Europe, portions of Africa, and the greater part of Asia, are, and always have been, meat-eaters. The Indo-European races have sprung from the nomadic shepherd tribes of Central Asia, who lived almost exclusively upon the flesh of their flocks and herds. They added food-plants to their diet only when they emigrated to other regions and adopted fixed abodes and occupations.

So universal has meat-eating been among the dominating races that it has become a generally received opinion that animal flesh is a necessity to a well-developed physique. The praises of beef are sung wherever Occidental civilization has penetrated. It is not only a popular belief, it is an accepted scientific opinion, that a considerable percentage of animal flesh must enter into the nourishment of any well-fed people.

Among the races and in the countries above referred to, the use of both animal and vegetable products has made a varied diet easy. In addition to this, they have from the earliest known times maintained a wide commercial intercourse, whereby they have been able to obtain the productions of every climate and soil. This intimate intercourse of people occupying wide areas has also led to an infinite combination of

different food products, so as to gratify every taste and supply all required physical nourishment. As soon as a new mode of combining and preparing was discovered and approved in one place it soon spread to all the others.

Such have been the means and aids to the development of the art of cookery, and thus the diet, as it now exists among the powerful races and nationalities of Europe and America, has been established.

The food of Japan, with a population of 36,000,000, or about that of Great Britain and Ireland, engaged in every branch of human industry, presents a complete contrast to all this. Here they are essentially vegetarians, animal flesh being largely prohibited by religion, and its general use made impossible by reason of its comparative scarcity and consequent high price. They were until within a few years confined to the vegetable products of slightly varied soils and climates by their system of non-intercourse. This isolation prevented the introduction of new food-plants adapted to their climate, and deprived them of outside discoveries of varied modes of preparation and combination. The religious inhibition of animal flesh did not include fish food. There was a further exception, in practice at least. The flesh of the wild boar and deer was eaten, but the limited roaming grounds of these animals and their remoteness from settlements renders hunting them difficult, and the number killed is therefore small, and their use confined to but few.

Japan, as has been stated, has in round numbers about 36,000,000 of people, and there are in the country but little more than 1,000,000 head of cattle. Of these, cows only are available for beef, as the emasculation of male cattle is not practiced, and they are therefore unfitted for food, and are used only as beasts of burden, so that not more than 600,000 head can be counted as sources of food. It will be seen, therefore, that in Japan there are less than 2 head to every 100 people, while in the United States there are 73 head to each 100 people. Again, of the 36,000 head of cattle slaughtered in the country last year, more than one-half were consumed by foreign residents and the foreign naval and merchant marine. The Japanese navy and army also consume considerable beef. It is therefore safe to say, as I have already intimated, that beef does not enter into the food of the mass of the people to any appreciable extent. Mutton and pork, outside of the treaty ports, are almost unknown. Of barn-yard fowls, geese, and duck there is a large variety. The wild fowl, consisting of pheasants, quail, woodcock, grouse, duck, and geese, are also abundant, but all these as well as eggs, on account of their high prices, can scarcely be said to enter into the diet of the common people at all except upon rare occasions. Fish is more largely eaten. The variety of fish is very large, and the gulfs, bays, and inlets of all the shores of the archipelago swarm with them, and they are also plentiful in the rivers and creeks.

I shall not attempt within the limits of this paper to give even the names of all the varieties of the fish, as there are over 200 kinds used as food. Cod, salmon, herring, mackerel, trout, perch, carp, eel, skait, mullet, cat-fish, and plaice, so well known to us, as well as many other varieties, are plentiful and cheap. The catching and curing employ large numbers of people. A very considerable percentage of the catch is dried.

The government is taking active measures to protect the fisheries and to introduce new species whereby the supply of food-fishes will be materially increased. At present, it may be said that one-half the people eat fish every day, one-quarter two or three times a week, and the balance perhaps once or twice a month.

Even with these exceptions the food of the masses is fully or even more than 90 per cent. vegetable.

As I have indicated, the variety of food-plants is limited to those produced in the middle temperate zone and upon soils of great sameness incident to a small archipelago of volcanic origin.

The object of this paper will be to show without too much detail what food, under all these unfavorable circumstances, these people have been able to produce, its variety, comparative nutrition, and adaptability to the wants of the human economy; thus, to some extent, explaining the apparent anomaly of people exhibiting endurance of body and power of intellect to a very considerable degree, while deprived of the usual nutriment held to be essential to such developments. This showing must necessarily consist largely of names and figures.

The variety of plants, roots, vegetables, sea-weeds, &c., which the ingenuity of this people, sharpened by their needs, has taught them to prepare and make palatable, and use for daily food, is very large. By the kindness of Prof. Edward Kinch, of the University of Tokio, I have been permitted to copy the list of food-plants prepared by him for the Asiatic Society of Japan, of which I am a member. This list, which is pretty full, except as to algæ and the whole class of sea-plants, I append to this report. From its great extent, it will be at once apparent that it is impracticable for me to enter into a description of the properties or mode of preparing each single plant. I have taken pains, however, to ascertain from the most competent authority, viz, the "Chef de cuisine" of a well-known native eating establishment, the mode in which a number of the leading articles are prepared for the table. A large number of these food-plants are unknown, or at least unused, in the United States. From the valuable properties which the analyses I produce show they possess, it seems to me of the utmost importance that their introduction to, and general use by, our people should be encouraged.

#### CEREALIA.

The importance of the cereals of Japan is, in the order of the quantities produced, rice, barley, millet, wheat, rye, and Indian corn.

Rice is of course the most important, both in amount and value, as food. In summer it occupies more than one-half of all the tilled land. The following analysis of Japanese rice will serve to show nutritive properties:

Nitrogenous matter.....	7.55
Starch.....	89.65
Dextrine, &c.....	1.00
Fatty matter.....	1.10
Mineral matter.....	.70
	<hr/>
	100.00

A bushel of hulled rice weighs from 62½ to 65 pounds. There are said to be some 250 varieties of seed in the country.

Millet, consisting of three principal varieties, is extensively cultivated and used.

First class, *Sitana Italica* (Italian millet).

Second class, *Panicum mitiacum* (Indian millet).

Third class, *Panicum frumentacum*, known here as "Hiye."

Their analyses are as follows:

	First class.	Second class.	Third class.
Water.....	12. 05	13. 70	12. 00
Salts .....	2. 05	3. 55	3. 35
Fat .....	3. 03	2. 95	3. 03
Albuminoids .....	13. 04	10. 89	11. 78
Fiber .....	10. 41	5. 96	14. 75
Starch and sugar .....	59. 42	62. 95	55. 09
	100. 00	100. 00	100. 00

These figures show the food to be highly nutritious, containing as it does from 55 to 63 per cent. of starch and sugar, 11 to 13 per cent. of nitrogenous matter, 3 per cent. of fat, and from 2 to 3½ per cent. of salts, making from 71 to 82½ per cent. of nutriment. The best American wheat flour is scarcely more valuable than this. The average yield of millet is from 35 to 40 bushels to the acre.

Barley, wheat, rye, and Indian corn, as food-plants, are too well known to require a statement of their components. Barley in Japan is a staple food, and is grown principally for that use. Indian corn grows in the south quite extensively.

Sweet corn is only cultivated in the vicinity of the foreign settlements, and is principally used by foreigners. The saccharine matter of the plant seems to be exhausted in a couple of years, and fresh seed is required from the United States.

Buckwheat, although not one of the cerealia, may properly be mentioned in this connection. It is extensively cultivated on the lighter soils, and contains—

	Per cent.
Nitrogen.....	13 to 14
Starch.....	64 to 78
Oil.....	3 to 4
Salts.....	2 to 3

LEGUMINOUS PLANTS.

Perhaps in no country in the world are beans and pease comparatively so extensively cultivated as in Japan. There are more than 40 varieties. That known to us as the soy-bean is especially important, as it is rich in those nutritive properties which are wanting in rice, and is invaluable in a country where meat is almost entirely lacking in the diet. The composition of this variety, known as Nirva-mume, is as follows:

Water .....	11. 32
Ash.....	3. 86
Fat.....	20. 89
Nitrogenous matter.....	37. 75
Gluten .....	2. 00
Starch and sugar.....	24. 08

Thus this food furnishes over 20 per cent. of fat and upwards of 60 per cent. of nitrogenous matter, starch and sugar, and in its proximate chemical composition approaches more nearly to animal food than any other known vegetable. The well-known analyses of beef and mutton as furnished by Pavy are as follows:

Fat beef:	
Nitrogenous matter .....	14. 8
Fat .....	29. 8
Saline matter .....	4. 4
Water .....	51. 0
	100. 0

## Lean beef:

Nitrogenous matter .....	19.3
Fat .....	3.6
Saline matter .....	5.1
Water .....	72.0
	— 100.0

Other varieties of beans and pease contain from 18 to 30 per cent. of nitrogenous matter, with a corresponding proportion of starch and sugar. They are grown everywhere and enter into the food of all classes. I know it is held by scientists that while these plants show a great chemical likeness to beef, that the action upon the human body is not the same, being much less valuable. I can only repeat that here is a race of people of good physique, of stalwart and well proportioned, although not tall, frames, and of cheerful dispositions, who perform daily tasks requiring great strength and endurance, who eat almost exclusively this vegetable food, and who, without any of the comforts of our western homes, and undergoing exposure unknown to our people, live about the average lives of the laborers of Europe and America, with a table expenditure of about one-sixth or one-seventh that required by the latter.

Among the exceptional food-plants the corn is prominent. The bulk of this product is grown upon a small bush, from 3 to 4 feet high, on the plains and table lands. I am unable to give its analysis, but can say that it has less sugar than the nut from the chestnut tree of America, but has the merit of being free from astringent and bitter qualities. Large quantities of this nut are gathered, dried, and eaten by the people in various ways. The Japanese chestnut has probably less food value than the same nut in Europe and America, as it is deficient in sugar, the latter forming 15 per cent. of the best Spanish chestnut, and nearly as great a proportion of that of America, while the saccharine matter of the Japanese nut, though varying in quantity in different districts, nowhere amounts to more than 7 per cent. In many districts, however, it forms an important element of the food of the lower classes, during the early winter. Several varieties are known, that most commonly used appearing to be identical with the ordinary native nut of the United States.

## TUBERS AND ROOTS.

The sweet potato (*Batatas edulis*), in quantity and quality, takes the first place of all Japanese tubers. It is probable that it enters more largely into the food of the people than any other food-plant, except rice. This is owing to its prolificacy and consequent cheapness. The last official returns give the quantity produced in one year as 16,000,000 bushels. On account of the relative importance of this product, and the fact that it is but little used in large portions of the United States, I give its analysis:

Nitrogenous matter.....	1.50
Starch .....	16.05
Sugar .....	10.20
Cellulose.....	0.45
Fatty matter.....	0.30
Other organic matter.....	2.60
Water .....	67.50

The common potato (*Solanum tuberosum*) is not extensively grown here, being used mostly in the foreign settlements and vicinities. The carrot is a common food and the production large, and so with the parsnip.

A variety of large, white radish, known as "daikon," and growing from 1 to 3 feet in length and from 2 to 8 inches in circumference at the upper end, and weighing from half a pound up to 14 pounds, is grown everywhere and used in great quantities. I have not been able to procure the

sum of its product, but believe it to be equal to, if not greater than, that of the sweet potato.

Its analysis is as follows :

Water.....	94.97
Mineral salts.....	.61
Nitrogenous matter.....	.57
Fiber.....	.60
Sugar and pectose.....	3.25
	<hr/>
	100.00

It is a very popular food, and is prepared in a variety of ways, but like sour-kROUT and Limburger cheese, its aroma, which pervades almost every native street and house, is never mistaken by the untutored sense of the foreigner for the perfume of the daphne or the rose.

Turnips of many varieties are also grown in every province of the empire. The yield of the larger kinds, is, from their careful culture, immense. I have been informed, that in the rich valleys near Kiots from fifteen to twenty-one tons to an acre are often produced. "Sato-imo" (*country potato*) is a member of the areaceous family. Some ten varieties of it are largely cultivated.

*Onions*.—A number of varieties are raised and eaten, both the green stalk and bulbs. Lily bulbs are largely eaten. They are rich in starch and when properly cooked are delicious. Some sixteen varieties are used for food. Bamboo and chrysanthemum roots are also extensively used. Among a large variety of other roots used as food, which will be found in the list herewith, may be mentioned those of the sago plants, the "Oguruma" (*Jula japonica*), the "Bara-monjin" (salsify) and several varieties of the burdock family. A number of others are used for the manufacture of starch.

#### HERBACEOUS FOOD-PLANTS.

These are especially important as furnishing the mineral salts which are wanting in the cerealia and esculent roots.

The Japanese have cultivated and utilized a large number of wild plants as food-plants in Europe and America.

The number of these is astonishingly large, and so of the algæ and other sea-plants which abound along all the coasts in great variety. As furnishing nitrogenous matter, these sea-weeds and the edible fungi are of the greatest value, and are largely eaten by all classes. I have been unable to procure anything like a full or reliable list of these invaluable sea-plants, which of course renders this paper very incomplete, as they enter so largely into and form so important an element of the sustenance of the majority of the people. It may be said, however, that among them are many species of chondrus and *Fucus-laminaria*. *Laminaria* forms the second export in point of quality and value from the island of Yezo, whence it goes to more Southern Japan, but chiefly to China, in which latter country it is in great demand, both as a food proper and on account of the saline matter it retains as a condiment, and thus a means of evasion of the oppressive salt monopoly. Delicious and nutritious jellies are extracted from *Fucus* and a species of chondrus closely resembling carrageen (*Chondrus crispus*).

AMÉ.

The place of sugar in the dietary of the Japanese people is supplied to a considerable extent, by a preparation made from malted barley and rice or millet, the malt converting the starch of the rice or millet intro-

dextrine and maltose, and the product varying from a thick sugar or honey up to a hard candy. The food value of this article is very great, and, as it is sold at a low price, its consumption is large, rather perhaps as a luxury than a part of the daily meals. The following may be taken as a fair sample of the composition, the first of the better and the second of the cheaper "amé:"

	First.	Second.
Water .....	19. 80	18. 52
Dextrine.....	20. 20	12. 38
Maltose.....	60. 00	69. 10

The following is the table of which I have spoken, giving the mode of preparing a few of the leading plants for the palate:

"Oguruma" (*Inula japonica*) (sunflower).—Fruit dried and eaten raw with sauce.

Chrysanthemum.—Leaves and flowers boiled and eaten with sauce. Root boiled and eaten with sauce and sugar.

"Fuki" (*Nardosmia japonica*).—Stalk boiled and eaten with sauce and sugar.

"Truwabuki" (*Ligularia kampferi*).—Stalk eaten salted.

"Gobo" (burdock).—Root boiled and eaten with sauce and sugar. Leaves boiled and eaten as greens.

Artichoke.—Leaves boiled and eaten with sauce.

"Haha kigi."—Young shoots boiled and eaten with sauce.

"Yanagi gobo" (willow burdock).—Leaves pickled and eaten with sauce.

Sotetsu (sago palm).—Leaves and seeds (seeds dried) eaten with sauce and sugar. Leaves boiled with beans.

Allspice, mixed (unground).—Used as condiment.

Aniseed.—Used as condiment.

"Akebi."—Eaten raw.

"Junsai" (*Limnantherum peltatum*) (fresh water).—Eaten raw with sugar.

"Hitsuji grusa."—Leaves pickled and eaten with sauce.

"Midzu-buki" (*Euryale ferox*) (a water plant).—Stems boiled and eaten with sauce and pickled always with sauce.

Poppy.—Seeds dried and powdered; used as condiment.

Water-cress.—Eaten raw.

"Inu-karashi" (mustard).—Boiled and eaten with sauce.

Horse-radish.—Used as a condiment.

Rape (many varieties).—Seed, leaves, and stalks boiled and eaten with sauce.

"Matsuna" (rape).—Leaves boiled and eaten mostly in soup.

"Gumbai Uchiwa."—Stalks and leaves boiled and eaten with sauce.

"Kakuwa."—Leaves boiled and eaten with sauce; starch made from root.

"Matatabi" (*Trochastigma polygame*).—Leaves eaten raw with sauce. Fruit pickled with sauce and vinegar. Wood sorrel. Leaves and flowers eaten salted.

Pepper ("sansho").—Seeds used as condiment. Leaves boiled and eaten with sugar and salt.

"Tachibana" (orange family).—Dried and eaten raw.

"Zabon" (shaddock).—Fruit eaten raw.

"Bushier kan."—Fruit eaten raw.

"Kunembo."—Fruit eaten raw.

"Natsume (date).—Boiled and eaten with salt and sugar.

"Kempo-nashi."—Fruit (kind of orange) eaten raw.

“Tochi” (horse-chestnut).—Dried and eaten with salt.

“Gin-mame” (bean).—Ground and eaten in various ways.

“Kudzu” (*Dolichos bulbosus*).—Root eaten boiled; also produces starch.

“Isova ume” (cherry).—Fruit salted and eaten.

“Yusura ume” (cherry).—Fruit salted and eaten.

“Niwa ume or mume” (cherry).—Leaves boiled and eaten with sauce.

“Zakuro” (pomegranate).—Fruit eaten raw. Leaves also eaten raw with salt.

“Hishi” (water caltrops).—Seeds eaten raw.

“Kikarasn uri.”—Ends eaten boiled with beans. Also seeds made into starch.

“Mitsula” (honeywort).—Leaves and stems eaten raw and boiled.

“Seri” (parsley).—Leaves and stems boiled and eaten with sauce.

“Yama seri.”—Leaves and stems boiled and eaten with sauce.

“Bofu” (parsnip).—Leaves boiled and eaten with vinegar.

“Udo” (*Aralia edulis*).—Stems eaten raw and boiled, with sauce.

“Yozoma.”—Fruit eaten raw and boiled with salt and sugar.

“Konniyaku” (arum).—Root boiled and eaten with sugar and sauce.

“Knwai” (*Sagittaria*).—Bulb same as above.

“Yamano inas” (*Dioscorea*).—A long root; four or five varieties; same as above, or sometimes ground and powdered over rice.

Lily bulbs (sixteen varieties).—Boiled with sauce and sugar and a little saké.

“Daikon.”—Prepared in a variety of ways—boiled, pickled, in soup, &c. The favorite mode, however, and the most aromatic, is the pickled, with beans and salt.

#### SAUCE.

Inasmuch, as will be seen, sauce enters so largely into the preparation of Japanese food for the table, it may be interesting to know how that mostly used is made.

“Shoyu,” known to us as “soy.” The one almost exclusively employed is made from wheat and the shoyu bean (ground) in equal proportions of one “sho” each (a sho is about 1 quart, 1 pint, and  $\frac{1}{2}$  gill). The materials are mixed and boiled, after which the mass is steamed in a basket or box for the purpose, with a perforated bottom. When the steaming process is finished it is put in a cask and left until a green yeast is produced. The compost is then taken out and dried in the sunlight. When dry it is put in a cask with salt water. After standing a good length of time the liquid is strained, and the sauce is ready for use. It has a rather pleasant flavor, and is said to be the basis of most of the renowned souces prepared in England. The refuse is fed to cattle.

THOMAS B. VAN BUREN,  
Consul-General.

UNITED STATES CONSULATE-GENERAL,  
Kanagawa, April 12, 1881.

[Inclosure.]

LIST OF PLANTS USED FOR FOOD, OR FROM WHICH FOOD ARE OBTAINED  
IN JAPAN.

Botanical name.	Japanese names.	Remarks.
CALYCANTHACEÆ.		
Chunonanthus fragrans (Lind.).....	Kinyeibai Kobai Kara-mume...	Japanese alspice; fruit; condiments.
MIGNOLIACEA.		
WURLERÆ.		
Illicium anisatum (L.) .....	Shikibi... ..	Star aniseed; fruit; condiments.
religiosum (S. & B.).....	.....	The fruit of the native <i>I. religiosum</i> , probably a distinct species, seems to be poisonous, and only the imported fruit is used.
SCHIZANDREÆ.		
Kadsura Japonica (L.).....	Sane-Kadsura .....	Stems; starch; mucilage.
Urana Japonica (Th.).....	.....	Stems for paper making.
BERBERIDEA.		
HARDIZABALACEA.		
Akebia quinata (Decaisne).....	Akebi.....	Fruit.
Rajania quinata (Th.) .....	Akubi .....	
Akebia lobato (Decaisne).....	Mitsuba-akebi .....	
NYMPHÆEÆ.		
CASIMIREÆ.		
Brarenia peltata (Pursh).....	Junsai.....	Stems and leaves.
Menianthes nymphoides (Th.).....	.....	
NYMPHÆÆ.		
Nymphaea fclragma (Geo. Bensord)....	Hitsuji-gusa .....	Seeds.
Euryale ferox (Salisb) .....	Midzu-buki .....	
NELUMBONÆ.		
Nelumbosum speciosum (Wied).....	.....	Lotus; roots; ronkon. Water bean; seeds; hasu-nomi.
Nelumbo nucifera (Goertri).....	Hasu-Hadisu.....	
Numphara relunibo (Th.).....	.....	
PAPAVEVACEÆ.		
PAPABERÆ.		
Papvera somniferum (L.).....	Keshi.....	Poppy; seeds; condiment.
ORUCIFERÆ.		
ARABIDEÆ.		
Nasturtium officinale (R. Br.).....	Tanetsu Kebana.....	Water cress; leaves, &c.
Irsyonbrium nasturtium (Th.) .....	.....	
Nasturtium palustre (D. C.).....	.....	
SESYMBRIÆ.		
Extrema wasabi (Maxium) .....	Wasabi .....	Root; condiment.
Cochlearia wasabi (Sich.) .....	.....	
ALYSONÆ.		
Cochlcarea Amoracea (L.) .....	Wasabi .....	Horse-radish; root; condiment.
BRASSICA.		
Brassica chinensis (L.).....	Abura na .....	Rape; leaves; several varieties.
orientalis (Th.) .....	Watane.....	
.....	Matsuna .....	Cabbage and cauliflower; leaves, &c.
.....	Murasakina.....	
oleracea (L.).....	Botanna .....	
campestris (L.) .....	Kabura na .....	

*List of plants used for food, or from which food are obtained in Japan—Continued.*

Botanical name.	Japanese names.	Remarks.
CRUCIFEREA—Continued.		
BRASSICA.		
Brassica rapa (L.).....	Kabu..... Sote tsu na..... Kabuna.....	Turnips; leaves and roots.
rapa var. rutabaga..... Brassica oleracea gongylodes.....	Kohl rabi.....	Swedish turnips; leaves, Leaves.
LEPIDENEA.		
Lepidium sativum.....	Seru-derei.....	Common cress; leaves.
THLASPIDEA.		
Thlaspi arvense (L.).....	Gumbal-uchira..	
KAKILINEA.		
Crambe maritronia (L.)..... Sinapis integrifolia (Wied)..... celnua (Th.)..... chinensis (L.)..... Japonica (Th.).....	O-Karshi..... Karashi nu..... Midzuna.....	Sea kale. Mustard; leaves and seeds. Mustard; leaves and seeds. Leaves.
RAPHANEA.		
Raphanus sativus (L.).....	Daikon..... Murasaki daikon..... Okas daikon..... Azami daikon..... Karami daikon.....	Giant radish; roots; many varieties eaten. Giant salad; pickled in Sake, residue or fermented (sau- er kraut).
vernalis.....		Garden radish; roots.
PORTULACEA.		
Portulaca oleracea (L.).....	Suberi hiyu.....	Purslane; stem and leaves.
TERNSTROMIACEA (CAMELLI- ACEA).		
GARDONEA.		
Thea chinensis (Imis.)..... bohea (Th.)..... Aetnidea sp..... polygama (Planchon).....	Cha..... Kakuwa..... Katatabi-nakumume.....	Tea; leaves; beverage. Fruit. Fruit.
GERANIACEA.		
OXALIDEA.		
Oxalis acetosella (L.).....	Yama Katabomi.....	Wood sorrel; leaves; eaten by children.
RUTACEA.		
ZANTHOXYLACEA.		
Zanthoxylon piperitum..... Fagara piperita..... Zanthoxylon schunifolium..... ailanthoides..... planispium.....	Sautho..... Ioru Tausho..... Oni Tausho..... Karasumo Tausho..... Oni Tausho..... Fuyu Tausho.....	Japanese pepper; leaves and seeds; condiment. Japanese pepper; leaves and seeds; condiment. Japanese pepper; leaves and seeds; condiment.
OURAUTIÆ.		
Citus sp..... trifoliata (L.)..... trifolia (Th.)..... japonica (Th.)..... iscumana (L.)..... nobilis (Loureiro)..... aurantium (Risso).....	Rokitsu Natsu-mikan..... Tachi bana..... Kuikan, Kumquat..... Zabon, Shaddock..... Pumoullo..... Pompelonooso..... Mekan.....	Fruit. Poor fruit. Fruit, round and oval. Fruit. Fruit; poor.

*List of plants used for food, or from which food are obtained in Japan—Contained.*

Botanical name.	Japanese names.	Remarks.
<b>RUTACEA—Continued.</b>		
<b>OURAUTIÆ.</b>		
<i>Citrus bigaradia</i> (Duham).....	Daidai, Kabusu.....	Fruit.
<i>medica</i> (Risso).....	Tebus kui kau.....	Fruit.
var. <i>chirocarpus</i> (Lour.).....	Bushin-kan.....	Fruit; used for preserves.
	Kuncubo.....	Fruit.
<i>malgarita</i> ?.....	Yudzu, Citron.....	Fruit.
<i>limonum</i> ?.....	Mikau.....	Fruit; many varieties.
		Eleven varieties.
<b>RHAMNEA.</b>		
<b>ZIZYPHEA.</b>		
<i>Zizyphus oulgavis</i> (Lour.).....	Natsumo.....	Jujube; fruit.
<i>Rhamnus zizyphus</i> (L.).....		
<i>Zizyphus sinensis</i> (Lam.).....		
<b>RHAMNIFERÆ.</b>		
<b>RHAMNIFERÆ.</b>		
<i>Hovenia dulcis</i> (Th.).....	Kempo Nashi.....	Fruit.
<i>Ampelidea</i> .....		
<i>Vitis ornifera</i> (L.).....	Budo.....	Grape; fruit.
<i>V. flexuosa</i> (Th.).....		
<i>V. indica</i> (Th. in Flora).....		
<b>SAPINDACEA.</b>		
<b>S. O. SAPINDACEA.</b>		
<i>Æsculus turbinata</i> (Blume).....	Tochi.....	Horse-chestnut; fruit; starch.
<i>Æ. pavia</i> (Th.).....		
<b>LEGUMINOCEA.</b>		
<b>(HEDYSAREA) S. O. PAPILIONACEA.</b>		
<i>Hedysarum esculentum</i> (Led.).....	Ogi.....	
<i>Arachis hypogea</i> (L.).....	Rakkasho Tojiuname.....	Ground-nut; earth-nut; fruit.
<i>Vicia faba</i> (L.).....	Sora mame.....	Broad beans; seeds.
<i>Faba vulgaris</i> .....		
<i>Pisum sativum</i> (L.).....	Yendo.....	Pea; seeds; two main varieties: midori yendo, saya yendo, the latter eaten in the pod.
<i>Amphicarpea edgeworthii</i> (Benth).....	Tabumame; Ginmame.....	
<b>PHASEOLEA.</b>		
<i>Dumaria truncata</i> (S. & F.).....	Nosasage.....	
	Karasu mame.....	
<i>Glycine soja</i> (S. & Z.).....	Tsuru mame.....	Seeds.
	No mame.....	
<i>hispida</i> (Moench).....		
<i>Soja hispida</i> (Miq.).....	Omame; daidzu.....	Soy bean; seeds; many varieties.
<i>Dolichos soja</i> (L.).....		Japan pea.
<i>Glycine hispida</i> f. <i>lanceolata</i> .....	Midzukuguri.....	
<i>Pueraria thunbugiana</i> (Benth).....	Kudzu.....	Root; starch.
<i>Dolichos hirsutus</i> (Th.).....		
<i>Canaralia incurva</i> (D. C.).....	Nata mame.....	Seeds.
<i>Dolichos incurvus</i> (Th.).....		
<i>lineata</i> (D. C.).....	Nata mame.....	Seeds.
<i>Dolichos lineatus</i> (Th.).....		
<i>Phaseolus vulgaris</i> (L.).....	Jugen mame, Gogatsu Sasage..	French bean; pods and seeds. For other names see notes.
<i>multiflorus</i> .....		Scarlet runner, pods and seeds.
<i>radiatus</i> (L.).....	Adzuki-Shôdzu.....	Seeds.
var. <i>pendulus</i> (Savatie). var. <i>subhilobatus</i> (Sav.)	Tsuru-adzuki.....	Seeds.
<i>Dolichos umbellatus</i> (Th.).....	Bundo-Yayenari.....	Seeds.
	Sasagi, Gram.....	Seeds; many varieties.
	Hata-sasagi.....	
	Adzuki-sasagi.....	

*List of plants used for food, or from which food are obtained in Japan—Continued.*

Botanical name.	Japanese names.	Remarks.
<b>LEGUMINOCEA—Continued.</b>		
<b>PHASEOLCEA.</b>		
<i>Dolichos bicontortus</i> (Durien) .....	Megane-sasagi .....	Seeds.
<i>Atylosia subthombei</i> (Miq.) .....	No-adzuki .....	Seeds.
<i>Rhynchosia volubilis</i> (Lour.) .....	Hime-kudzu .....	
<i>Glycine villosa</i> (Th.) .....	Taukiri mame .....	
<i>Lablab cultratus</i> (D. C.) .....	Sengokumame .....	Seeds.
<i>Dolichos ensiferus</i> (Th.) .....	Fujimame .....	
<i>cultratus</i> (Th.) .....	.....	
<b>ROSEA.</b>		
<i>Rosa rugosa</i> .....	Hamanasu .....	Fruit.
<b>ROSACEA.</b>		
<b>PRUNEA.</b>		
<i>Prunus tomentosa</i> (Th.) .....	Isora-mume .....	Fruit; makes good jam.
.....	Yusura-mume .....	
<i>cerasus</i> .....	Mume .....	Cherry; fruit.
<i>mume</i> (S. & Z.) .....	.....	Plum; fruit. Salted petals made into a beverage with water. Unripe fruit preserved in vinegar and salt as a pickle.
<i>Armeniaca</i> (Th.) .....	.....	
<i>pseudo-cerasus</i> (Lindl.) .....	Sakura. Yama .....	
<i>cerasus</i> (Th.) .....	.....	
<i>japonica</i> (Th.) .....	Sumsuo .....	Fruit.
<i>domestica</i> (Th.) .....	Nirva suduar .....	
<i>subhirtella</i> (Miq.) .....	Disakura .....	
<i>sp.</i> .....	Nirva-mume .....	
<i>incisa</i> (Th.) .....	Man-zakura .....	
<i>puddum</i> (Wall) .....	.....	
<i>armenica</i> (L.) .....	! Botan kiyo .....	! Apricot; fruit.
.....	Nirva-mume .....	
.....	Auzu .....	
.....	Hademkiyo .....	
<i>Amygdalus persica</i> (L.) .....	Momo .....	Peach; fruit.
<i>nana</i> (Th.) .....	.....	
<i>communis</i> .....	Hadenkiyo .....	Almonds; fruit.
<i>persica</i> var. ....	Kara-morus; amendo. ....	
<b>RUBEA.</b>		
<i>Rubus triflorus</i> (Richards) .....	.....	
<i>colsius</i> (Th.) .....	.....	Fewberry.
<i>chamnemous</i> (L.) .....	.....	Cloudberry.
<i>sieboldis</i> (Miq.) .....	Hasunoha-ichigo .....	
<i>buergeri</i> (Miq.) .....	Fuyn-ichigo .....	
<i>mollucanus</i> (Th.) .....	.....	
<i>corchori folius</i> (L. Tuna) .....	.....	
<i>villosus</i> (Th.) .....	.....	
<i>incisus</i> (Th.) .....	Ki-ichigo .....	
<i>crataegolius</i> (Binege) .....	.....	
<i>trifidus</i> (Th.) .....	.....	
<i>rabifolius</i> (S. & Z.) .....	Ichigo .....	
<i>palmatus</i> (Th.) .....	Moniji-ichigo .....	
<i>Thunbergii</i> (S. & Z.) .....	.....	
<i>luspilus</i> (Th.) .....	.....	
<i>parvifolius</i> (Th.) .....	Hanashiro-ichigo .....	
<i>triphyllus</i> (Th.) .....	Kara-ichigo .....	
<i>spectabilis</i> .....	.....	
<i>phoenicolasius</i> (Maxim) .....	.....	
<i>occidentalis</i> (Th.) .....	.....	
<i>edæus</i> (L.) .....	Kara-ichigo .....	Raspberry; fruit.
<i>Thunbergii</i> (S. & Z.) .....	.....	
<i>tokkura</i> (S. & Z.) .....	Kara-tano-ichigo .....	
<b>POTENTILLEA.</b>		
<i>Fragaria vesca</i> (L.) .....	Ichigo .....	Strawberry; fruit.
<i>indica</i> (Andr.) .....	Hebi-ichigo .....	Wild strawberry; fruit. Popularly said to be poisonous.
<i>chilensis</i> var. <i>anassa</i> .....	Oranda-ichigo .....	Strawberry; fruit.
<b>POTERIE.</b>		
<i>chilensis</i> .....	.....	

List of plants used for food, or from which food are obtained in Japan—Continued.

Botanical name.	Japanese names.	Remarks.
ROSACEA—Continued.		
POMEA.		
<i>Eyrus communis</i> (L.).....	Nashi.....	Pear; fruit.
var. <i>sinensis</i> (Koch).....		•
<i>sinensis</i> (Lind.).....		
<i>præcox</i> (Pallas).....	Ringo.....	Apple; fruit.
<i>malus</i> (L.).....	Ringo.....	Apple; fruit.
<i>raccata</i> (Th.).....		
<i>cy-unia</i> (L.).....	Maruners.....	Quince; fruit.
<i>leydonia vulgaris</i> (Pers.).....		
<i>chinesis</i> (Pois).....	Kevarin.....	
<i>sinensis</i> (Willd.).....		
<i>japonica</i> (Th.).....	Shidomi; kusaboke.....	Fruit.
<i>ancuparia</i> (Grestu).....	Yauranashi.....	
	Orana kamado.....	
<i>Photinia glabra</i> (Th.).....		
<i>japonica</i> (Th.).....	Bima; Loquat.....	Fruit.
<i>mesphilus japonica</i> (Th.).....		
<i>criobotrya japonica</i> (Lind.).....		
<i>Amelanchier canadensis</i> .....	Zai-furi.....	Shad-bush; fruit. Service-berry.
SAXIFRAGEA.		
SAXIFRAGEA.		
<i>Astilbe japonica</i> (Miq.).....	Arva-morisho.....	
<i>thunbergii</i> (Miq.).....	Aka-shoma.....	
	Toriashi-shoma.....	
<i>chinensis</i> (Maxim).....	Jamabucki-shoma.....	
RIBESIEA.		
<i>Ribes grossularia</i> (L.).....		Gooseberry; fruit.
<i>rubrum</i> (L.).....		Red and white currants; fruit.
<i>nigrum</i> .....		Black currants.
<i>grossulariodes</i> (Maxim).....		This and other ribes occur wild.
LITHRARIEA (GRANATEA.)		
<i>Punica granatum</i> (L.).....	Zakuro.....	Pomegranate; fruit.
ONAGRARIA.		
<i>Trapa bispinosa</i> (Roxb.).....	Hishi.....	Singhara of Kashiner: seeds chataigne d'eau. Water chestnut.
<i>Trapa bisponosa</i> var. <i>incisa</i> .....	Hime-hishi.....	Water caltrops; seeds.
<i>incisa</i> (S. & Z.).....		
<i>natans</i> (Th.).....		
CUCURBIFACEA.		
CUCUMERINEA.		
<i>Tuchosanites japonica</i> (Regel).....		
<i>cucumerina</i> (L. & Th.) ..	Kikarasuum.....	Seeds; starch.
<i>cucumeroides</i> (Ser.).....	Karasu-uri.....	
<i>Lageneria oulgaris</i> (Ser.).....	Hiyotan.....	Bottle-gourd; fruit.
<i>cucurbita lagenaria</i> (L.)....	Kamo-uri.....	Gourd; fruit. From this the food Kamplo is made.
<i>daristemon</i> (Miq.) probably	Yugawo Togan.....	Fruit: Young fruit as food; and fibers of ripe fruit as brushes and sponges.
<i>cucurbita hispida</i> (Th.).		
<i>Luffa petola</i> (Ser.).....	Hechima.....	
<i>Momordica charantia</i> (L.) ..	Tsuru-reishi.....	Fruit.
	Niga-uri.....	
<i>Cucumis sativus</i> (L.).....	Kiuri.....	Cucumber; fruit.
<i>melo</i> (L.).....	Makuwa-mi.....	Melon; fruit.
<i>flexuosus</i> (L.).....	Awo-mi.....	Melon; fruit.
<i>conomon</i> (Th.).....	Shiro-mi.....	Melon; fruit.
<i>Citrullus edulis</i> (Ipast.) ..	Suikwa.....	Watermelon; fruit.
<i>cucurbita citrullus</i> (L. & Th.)		
<i>Cucurbita pepo</i> (L.).....	Torasu; bofuri.....	Pumpkin; fruit.
FICOIDEA.		
MESEMBRYSA.		
<i>Tetragonia expansa</i> (Ait.).....	Tsuruna.....	New Zealand spinach; leaves; cooked.
<i>japonica</i> (Th.).....		

*List of plants used for food, or from which food are obtained in Japan—Continued.*

Botanical name.	Japanese names.	Remarks.
UMBELLIFERA.		
AMMINEA.		
Apium graveolens (L.).....	Oranda-mitsuba.....	Celery; stems and petioles. Anise-seed; seed; condiment. Homewort; stem and leaves.
Pimpinella anisum (L.).....	Uikio.....	
Cryp tolania canadensis (Dl.).....	Mitsuba .....,.....	
sison canadensis (L.).....	.....	
LESSELINRA.		
Foeniculum oulgare (Gœrtu).....	Uikiyo; Kurenomo.....	Fennel; herb. Sweet fennel. Leaves and stem.
dulce.....	.....	
Ananche stolonifera (D. C.).....	Seri.....	
Bupleurum falcatum (L.).....	.....	
Siler divaricatum (Beust et Hook).....	Bofu; uba-bofu.....	Leaves.
Selinum japonicum (Miq.).....	Yama-seri.....	
CAUCALINEA.		
Coriandrum sativum (L.).....	Korianderu.....	Coriander.
Darcus carota (L.).....	Ninzin.....	Carrots; roots.
PEUCEDANES.		
Pastinaca sativa (L.).....	America bofu.....	Parsnips; roots.
ARALIASEA.		
ARALISA.		
Arasia cordata (Th.).....	Udo.....	Young stems cooked.
edulis (S. & Z.).....	.....	
CORNACEA.		
Cornus Kousa (Buerger).....	Yamak'ka.....	Fruit.
CAPRIFOLIASEA.		
SAMBUCEA.		
Viburnum dilutatum (Th.).....	Yozone.....	Fruit.
COMPOSITEA.		
INULOIDEA.		
Jula helenium (L.).....	.....	Root.
japonica (Th.).....	Oguruma.....	
Junleo britannica (L.).....	.....	
HELIANTHOIDEA.		
Helianthus tuberosus (L.).....	.....	Jerusalem artichoke; tubers.
ANTHERUIDEA.		
Chrysanthemum coronarium (L.).....	Shiungikes.....	Chrysanthemum; leaves and petals.
	Kiku-na.....	
	Mujuis.....	
Pyrethrum chiversi (Sabiri).....	Riori-kiku.....	Flowers preserved in vinegar or in kegs.
Tanacetum marginatum (Miq.).....	Iwagihu; Mikkogiku.....	
SENECIONIDEA.		
Petasites japonica (Miq.).....	Fuki.....	Leaf stalk.
Fursillago petasites (Th.).....	.....	Stem (and in medicine).
Senicio Kœmpferi (D. C.).....	.....	
Tussillago japonica (L.).....	Tsuwa-buki.....	
CYNAROIDEA.		
Lappa major (Gœrtu).....	Gobo.....	Burdock; root.
Arctum lappa (L.).....		
Cynara scolymus (L.).....	Cheasen-azeuni.....	Artichoke; young flower-heads (receptacles).

*List of plants used for food, or from which food are obtained in Japan—Continued.*

Botanical name.	Japanese names.	Remarks.
SENECIONIDEA—Continued.		
CICHORIACEA.		
Cichorium endivia (L.).....	Kiku-jira.....	Endive ; leaves.
Taraxacum officinale (Wigg.).....	Hamajisa.....	
Lactuca sativa (L.).....	Tampopo ; Tampo.....	Dandeloin ; leaves.
Tragopogon porrifolius (L.).....	Chisa Tisra.....	Lettuce ; leaves.
	Bara-monjion.....	
	Mugi-nadeshiko.....	Salsafy ; roots.
SCORZONERA.		
Artanisia vulgaris.....	Yomoko.....	Leaves.
Sonchus oleraceus (L.).....	Reishi-azami.....	
arvensis (L.).....	Hachijo-na.....	
Boltonia cantoniensis (D. C.).....		
hirsutnea cantoniensis (Benth.).....		
VACCINEANA.		
ENVACCINIEA.		
Vaccinium oxycoccus (L.).....	Iwas-haze ; Akamons.....	Bog-cranberry.
vitis idaea (L.).....	Iwamono ; Kokemono ; Hama-nashi.	Cranberry ; fruit ; eaten by mountaineers after salting.
hirtum (Th.).....	Iwa-nashi ; usuichigo.....	
EBENACEA.		
Diospyros Kaki (L.).....	Kaki ; Yumakaki.....	Persimmon ; fruit ; many varieties.
japonica (S. & Z.).....	} Shinano-kaki.	
lotus (L.).....		
kaki (Th.).....		
GENTIANACEA.		
SWEETIEA.		
Pleurogyne rotata (Griseb.).....	Seuburi.....	Used medicinally as stomachic, &c.
CONVOLVULACEA.		
CONVOLVULEA.		
Batatas edulis (chois).....	Satsuma-imo.....	Sweet potatoes ; roots ; many varieties and names.
convolvulus edulis (Th.).....		
ipomoea.....		
SOLANACEA.		
SOLANEA.		
Solanum tuberosum (L.).....	Jagatara-imo.....	Potatoes ; tubers ; starch.
melongena (L.).....		Egg-plant.
aethiopicum (Th.).....	Nosu ; Nasubi.....	Brinjal ; fruit ; Naganasa, a variety with fruit more than a foot long.
Lycopersicon esculentum (Mill).....	Oka-nasu.....	Tomato ; fruit.
	Sanzoji nusufi.....	
Physalis alkekengi (L.).....	Hodzuki.....	Winter cherry ; fruit.
angulata (L.).....	Hodzuki.....	Winter cherry ; fruit.
	Yama-nasubi.....	
Physalis pubescens (L.).....		
siliata (S. & Z.).....		
Capsicum annuum (L.).....	Togarashi.....	Chilris ; fruit ; condiment cayenne pepper.
longum (D. C.).....	Togarashi (naga).....	Chilris ; fruit ; condiment cayenne pepper.
cordiforme (Mill).....	Togarashi (masu).....	Chilris ; fruit ; condiment cayenne pepper.
sp.....	Togarashi (shishi).....	Chilris ; fruit ; condiment cayenne pepper.
LABIATEA.		
OCIMOIDEA.		
Ocy mum basilicum (L.), probably O. acutum (Th.).....	Miboki.....	Sweet basil ; leaves ; condiment cayenne pepper.

*List of plants used for food, or from which food are obtained in Japan—Continued.*

Botanical name.	Japanese names.	Remarks.
<b>SATUREINEA.</b>		
<i>Perilla ocymoides</i> (L.).....	Yegoma.....	Seeds; condiment cayenne pepper.
<i>arguta</i> (Benth.).....	Shiso.....	Leaves; adjunct and coloring matter.
<i>ocymum crispum</i> (Th.).....	.....	.....
<i>Mentha arvensis</i> (L.).....	Megusa.....	Peppermint; leaves.
<i>piperita</i> (Th.).....	Hakka.....	.....
<i>vivida</i> (L.).....	Oranda Hakka.....	Mint.
<i>Origanum majorana</i> (L.).....	.....	Sweet-marjorum.
<i>Thymus serpyllum</i> (L.).....	Misa Hakka.....	.....
<i>vulgaris</i> (L.).....	.....	Thyme.
<i>Latureja hortensis</i> (L.).....	Kedachi Hakka.....	Sweet savory.
<b>MONARDEA.</b>		
<i>Salvia japonica</i> (Th.).....	Natsuno-tamuraso.....	Sage.
<i>Rosemarinus officinalis</i> (L.).....	.....	Rosemary.
<b>STACHYDEA.</b>		
<i>Stachys sieboldi</i> (Miq.).....	Chorogi.....	.....
<i>palustris</i> (L.).....	.....	Stems.
<i>japonica</i> (Miq.).....	.....	Tuberous root preserved in plum vinegar.
<b>PEDALIS.</b>		
<b>SERAMEA.</b>		
<i>Seramum indicum</i> .....	Goma.....	Seramum; seeds; condiment or adjunct and oil.
<b>CHENOPODIACEA.</b>		
<b>ENCHENOPODIEA.</b>		
<i>Chenopodium album</i> (L.).....	Akoza.....	Young leaves.
<i>Beta vulgaris</i> (L.).....	Tensei.....	Beet-root.
<i>saccharifera</i> .....	Sato Tensei.....	Sugar-beet root.
<i>benghalensis</i> (Roxb.).....	Fudanso.....	Leaves.
<b>ATRIPLICEA.</b>		
<i>Spinacea inermis</i> .....	Horenso.....	Spinach leaves.
<i>oleracea</i> (L.).....	.....	.....
<b>CHENOLEA.</b>		
<i>Kochia scoparia</i> (Schrad.).....	Hakakigi.....	Young shoots.
<i>chenopodium scoparium</i> (Th.).....	.....	.....
<b>SALSOLEA.</b>		
<i>Salsola rostrata</i> (L.).....	Akahijiki.....	.....
<i>asparagoides</i> .....	Matsuna.....	.....
<b>PHYTOLACCOACEA.</b>		
<i>Phytolacca acinosa</i> (Rox.).....	.....	.....
<i>kœmpferi</i> (Asa Gray).....	Yama-gobo.....	Leaves.
<b>POLYGONASEA.</b>		
<b>EUPOLYGONEA.</b>		
<i>Polygonum nodosum</i> (Pere).....	Yanazi-tade.....	Leaves.
<i>muricatum</i> (Meissu).....	Inn-tade.....	Leaves.
<i>japonicum</i> (Meissu).....	Ma-tade.....	Leaves.
<i>persicaria</i> (L.).....	Natsu-tade; Sanai-tade.....	Leaves.
.....	Midzu-tade; Kawa-tade.....	Leaves.
<i>Polygonum</i> .....	Teno-tade.....	Leaves.
.....	Udzu-tade; Birodo-tide.....	.....
.....	Hosoba-tade.....	.....
.....	Ito-tade.....	.....
.....	Oke-tade.....	.....
<i>cuspidatum</i> .....	Itadori.....	.....
<i>Fagopyrum esculentum</i> (Mocuch).....	Soba.....	Buckwheat; grain and starch and special food.
<i>Polygonum fagopyrum</i> (L.).....	.....	.....

*List of plants used for food, or from which food are obtained in Japan—Continued.*

Botanical name.	Japanese names.	Remarks.
<b>POLYGONACEA—Continued.</b>		
<b>RUMICRA.</b>		
<i>Rheum palenatum</i> (L.) .....	Dai-ō .....	Rhubarb; leaf and stalk.
<i>Rumex acetosella</i> (L.) .....	Sukaubo .....	Sorrel leaves.
<b>ELAAGNACEÆ.</b>		
<i>Ebagmes umbellata</i> (Th.) .....	Aki-gumi; Mashiro-gumi .....	Fruit.
<i>longipes</i> (A. Gray) .....	.....	Fruit.
<i>crispa</i> and <i>E. Muttiflora</i> (Th.) .....	Newashiro-gumi .....	Fruit.
<i>punjens</i> (Th.) .....	Natsu-gumi .....	Fruit.
<i>glabra</i> .....	Yama-gumi .....	Fruit.
<b>LAURINEA.</b>		
<b>PERSEACEA.</b>		
<i>Cinnamonum zeylandium</i> (Breyn) .....	Nikkei .....	Cinnamon bark; condiment.
<i>loreiri</i> (Uces) .....	.....	
<b>URTICACEA.</b>		
<b>CANNABINA.</b>		
<i>Humulus lupulus</i> (L.) .....	Kara-banaso .....	Hops; strobiles of beer manufactured.
<i>Cannabis sativa</i> (L.) .....	Asa .....	Hemp; seeds; condiment.
<i>Bœhmeria nivea</i> (Hook & Am.) .....	Kara-mushi .....	China grass; herb; vegetable.
<b>MOREA.</b>		
<i>Morus alba</i> (L.) .....	Kuwa .....	Mulberry; fruit; rarely eaten. (Kuwaichigo.)
<b>ARTOCARPEA.</b>		
<i>Ficus pumila</i> (L.) .....	Itabu; Inu-itabu .....	Fruit.
<i>F. carica</i> (L.) .....	Teika-Kadyura .....	
	Tokaki; Ichijiku .....	Fig; fruit.
<b>JUGLANDEÆ.</b>		
<i>Juglans regia</i> (L.) .....	Kurumi .....	Walnut; fruit.
<i>pterocarya japonica</i> (Miq.) .....	.....	
<i>Sieboldiana</i> (Maxim.) .....	} Kummi .....	Walnut; fruit.
<i>nigra</i> (Th.) .....		
<i>mandshurica</i> (Miq.) .....	Hime-gurumi .....	
<i>japonica</i> (Sieb.) .....	Oui-gurumi .....	
<b>OUFULIFERA.</b>		
<b>QUERCINEA.</b>		
<i>Quercus cuspidata</i> (Th.) .....	Shii .....	Oak; fruit; acorn.
<i>Castanea vulgaris</i> (Lamk.) .....	} Kuri .....	{ Chestnut; fruit.
<i>Fagus cestanea</i> (L.) .....		
<i>vulgaris fol. minor</i> .....	Shiba-yuri .....	Other varieties of <i>Castanea</i> , Sando-Kuri, Tauba-Kuri.
<i>Corylus heterophyllus</i> (Fisch.) .....	Hashibami .....	Fruit;
<b>MYRICACEA.</b>		
<i>Myrica rubra</i> (S. & Z.) .....	Yama-momo .....	Fruit.
<b>CONIFERA.</b>		
<b>TAXED.</b>		
<i>Torreya nucifera</i> (S. & Z.) .....	Kaya .....	Fruit.
<i>Ginkgo biloba</i> (L.) .....	} Ginko .....	{ Maiden-hair tree; fruit;
<i>Salisburia adiantifolia</i> (Smith) .....		
	Ichio .....	Ginnan; eaten raw.
<b>CYCADACEA.</b>		
<i>Cycadea casrevolna</i> (Th.) .....	Sotetur .....	Young leaves and seeds occasionally used for making starch.

*List of plants used for food, or from which food are obtained in Japan—Continued.*

Botanical name.	Japanese names.	Remarks.
ARVIDEA.		
Conophellus Konjak (Schott) .....	.....	{ Root; food and mucilaginous substance called Konniyaku and Kori-Konniyaku.
Conophellus arum dranunculus (Th.)... d. polyphyllum (Th.) .....	{ Konniyaku .....	
Corocasia antiquorum (Schott)..... arum esculentum (L.).....		
Leucoxaria gigantea (Schott) .....	{ Haru-imo .....	
Caladium esculentium (Lieb.).....		
Alocasia neurothiza (Schott) .....	{ Maushin-imo .....	Root.
Colocasia esculentum var. B. (S. & Z.)..		
ALISMACEÆ.		
Sagittaria sagittifolia (L.)..... sagittata (Th.).....	Kuwai .....	Bulb.
MISSACEA.		
Musa barjoo (Lieb) .....	{ Bashio .....	Banana: fruit.
pardisiaca (Th.) .....		Plantain; found in Okinawa Ken.
sapienta .....		
coccinea (Willd.).....	Himo basbiyo.....	
ZINGIBERACEA or SCITAMINEA.		
Gingiber officinalis.....	Shioga.....	Ginger; rhizomes; condi- ment.
mioga (Roscol) .....	{ Mloga .....	{ Young shoot <sup>s</sup> condiment, &c.
amonum mioga (Th.) .....		
Curcuma longa (L.).....		
B. macrophylla .....	Ukon .....	Turmeric; rhizomes.
DIOSCOREA.		
Dioscorea japonica (Th.).....	Yamano-imo .....	Root; Tsukmim and other varieties.
oppositifolia (Th.) .....	Jinenjo .....	Fruit; (Mukago) variety Shinshinimo.
japonica var. culta .....	Naga-imo .....	Root.
Dioccorea japonica, var. bulbifera.....	—imo .....	
quineloba (Th.).....	Dokoro .....	
septemloba (Th.) .....	Kikuba-dokoro.....	
sativa, (L.).....	Naga dokoro.....	
sativa, var., folius rotundis..	Mam dokoro .....	
ASPARAGINEA.		
Asparagus officinalis (L.) .....	Matsuba-udo .....	Asparagus; young roots; wild plant has different names.
LILIACEA.		
Erythronium denscanilis (L.) .....	Kata-kuri.....	Dog's tooth violet; bulb; starch.
Orythia edulis (Miq.).....	Mugi-guwai.....	Bulb.
Lilium speciosum (L.).....	Shiratama-yusi .....	Bulb.
superbum (Th.).....	Kanoko-yusi .....	Bulb.
auratum (Lind.) .....	Horaiji-yusi .....	Bulb.
tigrinum (Gasol.) .....	Oui-yusi .....	Bulb.
Thunbergianum (Roem. & Schult)	{ Hirato-yusi and other names.	Bulb.
bulbiferum (L.).....		
philadelphinum (Th.).....	Sasa-yusi; lamoto-yusi.....	Bulb.
japonicum (Th.) .....	Koyusi.....	
caliosum (S. & Z.) .....	Hime-yusi.....	Bulb.
pomponium (Th.).....	{ Yama-yusi.....	Bulb.
longiflorum (Th.) .....		
candidum (Th.) in flora .....	Ubayusi .....	
cordifolium (Th.).....	Kawayuvi .....	
Hemerocallis cordata (Th.) in flora .....	Asatsuki chive .....	Bulb.
Allium schœnoprassum (L.) .....	{ Rakkiyo .....	Bulb.
splendens (Willd) .....		
bakeri (Regel.) .....		
arenarium (Th.) .....		
Oplias Panicum corvi (Th.).....	Hiye.....	Millet; grain.
rus gallis (Lom.) .....		
frumentaceus (Kunth).....		

*List of plants used for food, or from which food are obtained in Japan—Continued.*

Botanical name.	Japanese names.	Remarks.
LILLACEA—Continued.		
<i>Oplis panirum framentaceum</i> (Roxb.) ...	Hiye.....	Millet; grain.
<i>Setaria italica</i> (Kunth.) .....	{ Awa.....	Millet; grain; shira-awa; mochi-awa; kuro-awa, &c
<i>panicum vesticillatus</i> .....		
<i>italicum</i> (L.) .....		
<i>miliaceum</i> (L.).....	Kibi .....	Millet; grain; uru-kibi; mochi-kibi.
CHLORIDEA.		
<i>Eleusine coracana</i> (Gartn.) .....	.....	Grain.
<i>cynosus coracans</i> (L.) .....	Kokusa; nanbaakibi .....	
AVENACEA.		
<i>Avena sativa</i> (L.).....	Kavasu-mugi .....	Oats; grain.
HORDEACE.		
<i>Triticum vulgare</i> (Ser.).....	.....	Wheat; grain; usually bearded and of winter va- rieties.
<i>aestivum et hybernum</i> (L.)...	Komugi .....	
<i>Hordeum vulgare</i> (L.).....	Omugi.....	Barley.
<i>hexartichum</i> (L.) .....	Omugi.....	Barley; bere; grain; the most common variety.
<i>Secale cereale</i> (L.) .....	Hadaka-mugi.....	Rye; grain.
ANDROPOGONEA.		
<i>Sorghum vulgare</i> .....	Morokoshi.....	Broom-corn; grain; ground and eaten.
<i>Holcus sorghum</i> (L.).....	.....	Sugar grass; grain and juice; sugar.
<i>saccharatum</i> (Pers.) .....	Rozoku .....	
<i>Holcus saccharatus</i> (L.) .....	.....	Sugar-cane; juice; sugar.
<i>Saconarum officinarum</i> (L.) .....	Kanshio .....	
	Sato-dake.....	
BAMBUSACEA.		
<i>Bambusa puperbula</i> (Miq.) .....	{ Madake.....	Bamboo; young shoots.
<i>Phyllostachys nigra</i> (Munroe). }		
<i>arundincea</i> .....	.....	Young shoots.
<i>nana</i> (Rox.).....	.....	Young shoots.
<i>floribunda</i> (Zoll. et Mor.).....	.....	Young shoots.
<i>clinio</i> (Fr. and Sav.).....	Climo.....	
<i>kumazasa</i> (Zolling.) .....	Kumazasa .....	Young shoots.
FILICES.		
<i>Pteris aquilina</i> (L.).....	Warabi .....	Brake-fern; young fronds; starch for root.
<i>Osmunda regalis</i> (L.) .....	Zemmai .....	Royal fern; fronds.
var. <i>biformis</i> (Benth.).....		
<i>japonica</i> (Th.) .....		
<i>regalis</i> $\beta$ <i>japonica</i> (Wilde)...		
LICHENS.		
<i>Baeomyces digitatus</i> (Ait.).....	Iwa-take .....	
<i>Usnea florida</i> (Ach.) .....	Kinori .....	
FUNGI.		
<i>Agaricus campestris</i> .....	Shiitake.....	Benitake, shishitake, shineji, nedzumitake, hokitake, and other species.
	Matsutake.....	
	Hatsu-dake.....	
	Kikurage.....	
<i>Tremella auricula</i> .....	Kawa-take.....	
<i>Hydnum</i> .....		
<i>Boletris</i> .....		
<i>Lycoperdon</i> and many others. ....		

**THE ISLAND OF KIN-SHIN AND THE PORT OF NAGASAKI.**

*REPORT BY CONSUL JONES, OF NAGASAKI.*

The island of Kin-Shin, as I have before mentioned in my reports, is in many respects one of the most interesting of the group of islands which form the Empire of Japan; and the treaty port, Nagasaki, has great capacities for trade with the civilized world, but as yet the export and import trade may be considered as quite in its infancy.

The harbor of Nagasaki has a wide reputation. It is very accessible, with an excellent light-house at its farthest approach; is admirably protected by high, rugged hills that rise nearly to the dignity of mountains. There is space and depth of water sufficient to accommodate large fleets; and a dock-yard, ship-yards, foundry, and machine-shops adequate to every want.

The Japanese Government has built at these yards several vessels of war which would be creditable to the skill and workmanship of any of the ship-building establishments of the United States.

Nagasaki is two days, by steamer, from the chief emporium of China—Shanghai. It is distant from Wladivostoch, the new Russian port, less than four days. From Corea, the passage is made in less than two days. In this last strange and almost unexplored region of the world, the Japanese are pushing their way, and have already succeeded in establishing a considerable trade, shipping from this port a great variety of foreign goods as re-exports.

The coal area of Tahashima, the most important coal-field of Japan, is distant less than an hour's sail from Nagasaki, and the supply is virtually inexhaustible. This coal is bituminous, and the average "out-turn" per day is about 1,000 tons.

The great need of the island of Kin-Shin is good roads, connecting Nagasaki with the interior, and with even larger cities further south. Owing to the absence of any highways, the only means of communication with coast towns is by boats, junks, and small steamers, and with the interior by rugged pathways, used by the natives, who transport the produce of the country in panniers, supported by a pole across their shoulders, and sometimes, where the pathway admits, on buffaloes. There are no roads which will admit the passage of wheeled vehicles.

The island, as all of Japan, is volcanic. Within a day's sail of Nagasaki, to the southward, there is an active volcano, in a state of almost perpetual eruption, the scoria from which covers the neighboring ground, and is found in dense masses 20 miles at sea.

Earthquakes are not uncommon, but fortunately are of a milder character, rarely doing any damage, though one which occurred in the early part of December, at nine o'clock one calm, bright morning, was decidedly sharp, and its approach was announced by subterraneous grumbling as novel to me as it was indescribably unpleasant to hear. The consulate cracked and trembled as though the roof and walls would fall. No damage was done, however, to the consulate or the city, and nobody hurt, though every one was unpleasantly startled, and for the rest of the day nervously expectant.

The general aspect of the country is wild and rugged, and in many places there are to be found almost inaccessible acclivities. Yet there

are numerous valleys teeming with fertility and capable of supporting a very dense population, and of producing every variety of fruit and grain and vegetable and vine adapted to a semi-tropical climate.

The vegetation is luxuriant, which clothes the mountains, even to their very summits, and in many portions nature yields an abundant crop almost spontaneously. With care and industry, two and even three crops of cereals and vegetables can be obtained.

The people partake of the characteristics of the Latin races of Southern Europe; they are impulsive, imaginative, and passionate, but show an intense longing for the culture, the knowledge, and the mechanical appliances of our more favored race. They are especially friendly, so far as I have been able to observe, to the people of the United States, and the tourist, if it is known he is a citizen of the Great Republic, finds everywhere a hospitable welcome.

If the island could be opened by good roads I have no doubt there would immediately spring up increased intercourse and trade and a further demand for American goods and the manufactures of our country. Take, for instance, the single article of kerosene; there is hardly a Japanese in this city, of 60,000 or 70,000 inhabitants, who does not use this oil now. A few years ago it is well known one found only the rush light and the rude contrivances, such as were used by our early ancestors in the times of the Saxon kings.

Kin-Shin is the birth-place of many of the heroes, warriors, and statesmen in Japanese history. A great rebellion occurred here in 1876, under the leadership of the famous General Saigo. This war of about six months' duration only, cost the Imperial Government at Tokei nearly \$100,000,000, and this portion of Japan suffered very disastrously from its effects. It is only now beginning to recover.

Consuls could accomplish much if the Department would give certain discretion about leaving their post and visiting the principal centers of trade in the country, with a view of observing for himself what the people seemed to want in the shape of foreign manufactures, &c.

The United States opened this country to the commerce of the world; yet, England and France have reaped the fruits. They have built their railroads, their steamships of war and commerce, their dock-yards, their machine-shops, and light houses, while the United States, her nearest neighbor and best friend, looks across the waters of the same great ocean which washes her shores (and on which she has very few ships), and virtually does nothing.

ALEXANDER C. JONES.

*Consul.*

UNITED STATES CONSULATE,  
Nagasaki, 1881.

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## AFFAIRS IN PALESTINE.

REPORT BY CONSUL WILSON, OF JERUSALEM.

In pursuance of instructions in your circular under date July 1, 1880, I deem it my duty to send you, from time to time, such reports as may tend to advance the commerce and industries of the United States of America.

*The harvest* last year was good, and the cost of wheat flour and barley is only half what it was a year ago.

The rains this winter have been well distributed, though not heavy, and the prospect is favorable for the next harvest. The Plain of Sharon is green. The wheat is already well grown, the Jaffa gardens present an attractive appearance, and the oranges command a good price—50 per cent. more than last year—on account of the comparative failures in some other countries.

*Petroleum.*—A few weeks ago petroleum advanced in price 50 per cent., but it has fallen again, and now rules at the usual market price. No reason apparent except the caprice of the grocers.

*American goods.*—Of American products, in the market, I find petroleum, corned beef, hams, and occasionally sewing-machines, guns, and pistols.

In the absence of a line of American ships or steamers on the coast, American products are best obtained through the firm of Messrs. Linn & Co., of Alexandria, Egypt. I learn that the Austrian Lloyd steamers and the French steamers are heavily subsidized by their respective governments.

*Exports.*—The export of horses and cattle was forbidden last year by the Porte on account of disease in the Haman and Nablous districts, but I do not learn that the disease prevails at present.

*Internal improvements.*—We have reports from time to time of the building of a railroad to Jerusalem, a tramroad to Jerusalem and to the Dead Sea, and the establishment of a line of steamers on the lake, but my opinion is that these projects exist only on paper. Of course the credulous people believe these reports, and sometimes a good deal of excitement prevails on the subject. We have not even a good wagon-road to Jaffa, and this is the only road in the country worthy of the name.

In the absence of newspapers, and with only occasional telegrams, we live in a state of ignorance and doubt and painful expectancy in regard even to affairs in which we are not directly interested. There is not a newspaper in Palestine, except two small Hebrew sheets of no practical import.

The German colonies at Jerusalem, Jaffa, and Heifa, on account of the good harvest of last year, are in a better condition than they were a year or two ago.

J. G. WILSON,  
*Consul.*

UNITED STATES CONSULATE,  
*Jerusalem, February 16, 1881.*

## ROYAL CREMATION IN SIAM.

REPORT BY CONSUL HALDERMAN, OF BANGKOK.

I have the honor to report, for the information of the Department, that the ceremonies incident to the cremation of the late Queen and infant child have just terminated, after a duration of eleven days. It will be remembered that these royal personages were accidentally drowned in the Menam River on May 31 last.

For the two weeks last passed, Bangkok has been thronged with visitors from all parts of the kingdom, during which time the heat has been intense, the small-pox appalling, and the dust barely endurable.

The preparations for the ceremonies have been more elaborate and expensive than any ever before known in Siam, costing, it is said, a half

million dollars or more. The exercises consisted of religious rites after the Buddhist faith, processions, races, tournaments, tilting, boxing, wrestling, theatrical performances, games, fireworks, &c. Each day the King distributed, as gifts among the assembled thousands, large numbers of small Siamese gold and silver coins and lottery tickets encased in limes and wooden balls, which were eagerly struggled for alike by rich and poor, bond and free, peer and peasant.

On the 13th instant the remains of the late Queen and princess were borne in catafalque and procession with great pomp and ceremony from their temporary resting place in the palace to the Pramane, or cremation building, where they were placed upon the funeral pile.

On the 16th instant the King applied the torch and lighted the pyre, amid the lamentations of wailing women, children, and priests. His Majesty was visibly affected and gave expression to his great sorrow.

On the following day the ashes were collected and consigned to the Menam River. The unconsumed bone relics were inurned in golden vessels and deposited with those of the royal family.

The diplomatic and consular corps had been specially invited by the King to witness these ceremonies, and throughout the same, attended by the foreign minister, they occupied choice positions for comfort and observation.

Herewith will be found a detailed account from the local press.

JOHN A. HALDERMAN,

*Consul.*

UNITED STATES CONSULATE,  
*Bangkok, March 25, 1881.*

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#### CREMATION CEREMONIES.

[From the Siam Weekly Advertiser, March 18, 1881.]

Having landed at the T'a-chang, we passed through a dense crowd from thence to the hall of His R. H. Somdet Chowfah Bhanurangsi Swang Wongse, which was designated as the place assigned to foreigners, where they would have the best possible view of all the events of the day. It would be impossible to estimate the numbers present in all directions to honor the occasion and see the sights. All that could be spared from their homes, in a city of more than 500,000 inhabitants, and the multitudes from all parts of the kingdom who were in the city to honor the highly esteemed Queen were out on that day. This is the only statement that can give an approximate conception of the vast numbers who crowded all the streets of the city converging to the palace during this day and night, the most important day of the ceremonies.

The establishment of His Royal Highness was well filled with foreigners; the turnout was general, excepting the foreign Roman Catholic priests and the American missionaries.

At 10 a. m., companies of soldiers dressed in blue, carrying their arms with fixed bayonets, advanced. These were followed by a line of lictors on each side of the street, holding in their hands a bundle of rattans. These were dressed in blue, with white hats and blue bands. Then followed in succession companies of spearmen, holding their weapons under the arm, the sheathed spear pointing to the ground behind them; companies of swordsmen, their weapons in their scabbards. These were dressed in white coats, white hats, with a band of black crape on the right arm.

His Majesty was attired in mourning, seated in the royal sedan; he held his black hat in his hand, and passed with uncovered head in recognition of the respect shown him by the standing group of foreign gentlemen and ladies, who courtesied and bowed as H. M. came in sight. H. M.'s children, an interesting and pretty group, were borne in a gilt palanquin by twelve bearers immediately after H. M. These were followed by a regiment of soldiers in red jackets, bearing their arms with fixed bayonets.

After H. M. had passed, preparations were made to clear the streets, so as to allow of ample room for the real procession, the great object of attraction for the day.

We noticed here acts that merit no other name than brutal cruelty.

It was manifest that all the temporary buildings lining each side of the street

were appropriated for particular parties. The public of all nationalities were invited to attend and honor the occasion, but were cautioned not to interrupt or in any way impede the procession. Such a general invitation attracted immense crowds, and as far as could be observed they meant to be obedient to the directions which had been promulgated. Both sides of the streets were crowded, leaving the street free for the procession.

After His Majesty the King had passed, on the opposite side of the street where the foreigners were assembled a great crowd pressed upon each other to look at the foreigners and get a good sight of the really significant part of the procession.

Some rude officials with rattans went to this crowd and began mercilessly to strike at the inoffensive crowds, and some well-dressed native women in the shed opposite the house of His Royal Highness, with slats of bambus, joined in the merciless cruelty of beating them from their elevated position. It created a shudder, and called forth exclamations of shame! shame! from the kinder hearted foreign spectators. It would have been much more reasonable if these cruel people, who seemed to be possessed of some authority, had indicated a less conspicuous but equally suitable place of observation for these innocent, well-intentioned spectators. All the Europeans who held official positions endeavored to display to the utmost their rank in the burdensome uniforms under which they groaned.

Soon the sound of slow and plaintive music was heard, the band came in sight preceded by an ensign-bearer. He was supported on each side by tassel-bearers. The standard-bearers and members of the band were dressed in deep mourning (black) even the drum was draped in black.

This band was followed by three companies of soldiers with their arms reversed, bayonets in their scabbards. The officers of these companies had a broad band of black crape fastened to the right arm. Each man wore a black coat and white pants. All were barefooted, and stepped slowly and solemnly.

These were followed by many companies in black suits with red trimmings, white hats, and light-colored leather pouches.

While the procession was in motion theatrical performers of the contiguous nationalities, as well as Siamse, were going through their performances. Opposite, but a little above where the foreigners were located, was a theatrical establishment called a rong k'one. This was in active operation, performing parts of the Ramakien, an Indian mythological romance. The royal body guards formed a hollow square, and protected all access to H. M. the King's pavilion, and all avenues of access to H. M. the King.

A second band approached; these were dressed in black, with yellow lacings, and their hats had tufts. This band was followed by companies in black, with red trimmings, white hats, bearing their arms reversed.

His Royal Highness Somdet Chowfah Bhanurangsi Swang Wongse made his appearance, and took his place with his foreign guests. He was dressed in deep mourning. This part of the procession represented the military, and showed that there were in it the elements of a splendid and effective army. This part of the procession was forty minutes in passing.

Next in succession appeared a band dressed in white, and preceded the naval force of the kingdom. Many companies dressed in white, bearing their arms reversed, bayonets in their sheaths, at their sides, and a broad band of black crape on their right arms.

These were followed by civilians, the Siamese ministers, and other high officials of state, in white coats, with gold sashes. Their breasts were adorned with resplendent orders, foreign and Siamese. This part of the procession was fifteen minutes in passing.

An artificial rhinoceros appeared in sight, and lines of men representing celestial beings known as Tewadahs, with conical white hats, holding small gilt houses containing presents for the priests. Lines of native soldiers in the style of old Siam, holding flags and streamers of all colors and shapes. Lines of men with streamers, wearing jackets of grotesque and quaint colors, shapes, and designs, some bearing poles to which were attached in rolls of waving lines white and yellow cloths, designed as presents for the numerous priests of the country. Others wore red caps and jackets, and were drawing carts on which were placed pretty gilt houses, laden with presents for the yellow-robed gentry of the country.

Minute-guns were now being fired, indicating that the urned remains of the Queen and her princess daughter of the highest possible grade were being moved from their temporary resting place at Wat Poh, to be conveyed to the gorgeous cremation building. Piles upon piles of presents for the priests were borne on men's shoulder's, four bearers to each gilt palankeen. Then on each side of the street followed all sorts of imaginary beasts, partly human, partly animal, drawn by men dressed in red. These imaginary beings were all burden-bearers for the priests. Then followed lines of men dressed in blue, carrying streamers and flags. The imaginary beings were represented with faces of all possible colors. Again came in view lines of

Tewadahs, with their white conical caps, each holding a trident; at the end of each point was a white lotus flower. Again, lines of men dressed in red, each holding and striking in mournful cadence a drum, and Tewadahs in white apparel and conical hats. Then came bands of native instrumental music, followed with five and seven sectioned chats, insignia of approaching royalty. The head priests' elaborately gilt and spired car drawn by men and horses approached; this was striking and gorgeous and surrounded by gold chats. Its apertures were provided with gold curtains. The head priest, the King's uncle, sat in state, with open palm-leaf book before him, but passed by in silence. Then came lines of gold chats, each five-sectioned. This car was followed by a train of Siamese mourners, with closely-shaved heads, dressed in white.

The second car was drawn by six horses and forty men. The standard bearers of this car were dressed in green. A very near relative of the Queen was in this car.

The third car contained the youngest brother of the Queen. These cars were very much alike in general appearance and elaborateness of finish and accompaniments.

The fourth car was the car of cars, and the great object of attraction. Its finish, style, and costliness transcended all the others; it contained the gold urn, sparkling with gems, and which held the remains of her late Celestial Highness, the infant Princess Chowfa Kanabhorn. The urn was decorated with silver tassels. The car was six-sectioned; gold chats were placed around it, tier after tier.

The fifth car was six-sectioned, costly and elaborate, not materially different from the preceding one, and contained the urned remains of her late Majesty the Queen. Both these cars were followed by, manifestly, the servants of the deceased and the living brothers and sisters of the deceased Queen. All these retainers were dressed in white, and their bare heads were closely shaved.

The sixth and seventh cars were of elaborate workmanship and costly material, and contained what seemed to be empty urns, designed doubtless for use when the cremation may take place.

These were followed by chat-bearers. The chats were of all colors, green, blue, red, &c., and large quantities of presents for the priests.

Next followed numerous boats placed on carts and being drawn by men; these are presents for the priests.

The procession now stopped, but the street, as far as the eye could reach up and down, was filled with what had and had not passed of the procession.

The distinguished foreign visitors, H. B. M.'s agent, the French commissaire and consuls of the treaty powers, with their suits, witnessed all that was transpiring from the verandah of the temporary refreshment building of H. R. H. Somdetch Chowfa Bhanurangsai Swang Wongse; and the other foreign residents, English, American, and Europeans, with their families, witnessed the same from the north verandah of the same building, which gave its occupants a much wider field of view. These had the advantage of seeing the entire procession and had in full view the Pramane buildings, the King's pavilion, the position of the soldiers, the plays and other imposing scenes that were being acted. After this, all were entertained and refreshed with lunch.

At half past 2 p. m. the consuls of the treaty powers, their suits, and distinguished visitors were allowed to enter the Pramane buildings, witness the process of placing the gold urns in position on their golden altars. After they were placed in position they were conducted to the west hall of the grand Pramane building, and had an audience with H. M., who gracefully thanked them for their attendance, and the honor they had conferred in assisting him in these last sad tokens of respect to his loved and departed ones.

The day was excessively warm, and the streets were quite dusty. Under the circumstances, for these conditions there was no remedy.

At 5.30 p. m. His Majesty the Second King came to H. M. the First King's pavilion.

At 5.37 H. M. the First King came to his pavilion, dressed in deep mourning. The foreigners rose, the ladies courtesied, and the gentlemen bowed, and H. M. returned the attention shown him by a kind recognition.

The arrival of H. M. at the royal pavilion was the signal for active performance in all directions. The wire walkers went through their movements, the theatricals and plays of all descriptions resumed their performances with spirit.

In front of H. M. was the lion dance, tiger's antics, an Indian drawing water from a reservoir and surprised by a tiger, the anxious contest. Two horsemen engaged in a game of tilting.

Presents were meanwhile being distributed in all directions.

The consular and official bodies were provided with seats within sight and hearing of H. M. The other foreigners retained the position of the forenoon and still had the advantage of the more extensive and comprehensive view of all the surroundings.

His R. H. Somdetch Chowfa Bhanurangsai Swang Wongse was the bearer of presents from H. M. the King to the non-official foreigners. Each gentleman and lady received three or four presents. These consisted of limes in which were imbedded out of sight a silver piece, new coin; in some were fuangs, and in others salungs. Others were

artificial nuts, made of light wood, hollow in the center, containing a numbered ticket, stating what could be drawn on its presentation at the drawing-depot.

At 6.40 p. m. H. M. ignited the quick fuse which placed the grounds in a blaze of light, and a large variety of interesting fireworks of every description passed off in succession; and while this was in progress, in front of H. M. were a large company of men dancing, with lotus-flower lanterns in each hand; others with lanterns representing the serpent-dance.

On all the streets about the Pramane grounds were large spacious halls, where were a great variety of performances. Even the Indians had a hall, where they gave an entertainment of musical instruments and vocal songs.

The day passed away pleasantly. H. M. the King, shows that he is a kind father as well as a gracious sovereign. His group of interesting and pretty children accompany him on these grand occasions and receive much paternal attention.

H. H. the ex-regent and the ministers of state and leading officials are all very gracious in their recognition of and in their attentions to the foreigners who were present on all these formal and ceremonious occasions. It is not to be wondered at that the common people envy the foreigner who receives so many attentions, while they are seemingly neglected, yea more, oppressed, sorely so by those of the nobility, who are unscrupulous, overreaching, and overbearing.

On all these occasions the many repeating-arms of modern invention may be seen in good positions to enforce good behavior, and make it the interest of the people to be law-abiding, peaceful, and honest.

The bristling Gatling gun, capable of clearing extensive ranges, is a wonderful and logical pacificator.

MARCH 16, 1881.

During the day the officials and their subalterns were engaged in removing the grand altar in the center of the main building of the Pramane, and the costly gold work that composed the gorgeous urns. Having removed these, they erected temporary altars upon which were to be placed the remains that were to be cremated. The beating of native drums and shrill notes of native music indicated to the masses of people (only a very few of whom could obtain positions to observe) what was going on when the urned remains were being changed in their position.

Two frames were erected and surrounded with incombustible but transparent material. The remains were placed in elaborately worked caskets of sandal wood, and festooned with fresh, fragrant, and beautiful flowers. The remains were so placed that candles, sandal and other fragrant woods could be thrown in and about them. A flourish of trumpets indicated when the remains were placed in position and when H. M. first applied the devouring element.

The pyre having been ignited by H. M., the relatives, princes, ministers, and others, in turn, threw in their candles and fragrant wood wrought into flowers and pieces adapted for the purpose. During the burning many of those who threw into the flames their candles and fragrant wood gave vent to their not to be repressed feelings. There was much wailing and lamentation. The consuls and other foreign spectators were honored with an opportunity of advancing to the altar to observe the doings of the people and of the burning element. There were on hand those whose business it was to regulate the flames, that they do no more than the precise work assigned them.

Previous to the cremation the European officials had assigned them a position on the north side of the east gate, within the Pramane inclosure, giving them an opportunity of seeing the preparations immediately preceding the cremation. The non-official foreigners were very comfortably located in the spacious and airy hall of H. E. Phaya Bashakarawongse, for the same purpose.

After the cremation was properly under control, the entire foreign community were conducted to the refreshment hall of His Royal Highness Prince Somdetch Chowfa Bhanurangsi Swang Wongse, where they were entertained till H. M. made his appearance on the pavilion, and the usual evening presents were made and the sports were enacted.

The princes were all dressed in black.

H. M. the Second King entered the Pramane square at 5 p. m., giving and receiving the usual salutations.

The remains, when prepared for cremation, were placed upon the altar, under a dome of fresh, beautiful and fragrant flowers. This dome was surmounted by a beautiful crown resplendent with brilliants.

The cremation began a little after 6 p. m.

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This morning the ashes were collected, the unconsumed bones were removed, placed on state palankeens and were conveyed through the west gate, in procession, to the royal barges at the Ta P'ra landing. From this place a procession of forty-seven barges accompanied the royal barges and conveyed the ashes to the temple Wat Yan-awarahn. Here the ashes were thrown into the river.

The five-staged pyramidal altar was re-erected in the P'ramane, and the bone relics were placed in a golden Busabok on it.

The procession returned from the Ta P'ra landing, brought from the grand palace, in state, the relics of Buddha and the bone relics of His late Majesty P'ra-Chaum-Klao, of Her late Majesty the Queen Somdetch P'ra Tape Surindramat, of the celestial Princess Chandramout'on, and the statue of the celestial Prince Isiriyalongkorn. The procession marched by the gates Wiman Chaisi and Wiset Chaisi, passing Fort Padet Dasukon, and by the road to the east gate of the P'ramane. When these were placed in His Majesty's pavilion, the bone relics of Prince Unukarn and P'ra Ong Nop'ahng were brought there also.

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The principal performances of these days were recitations by the priests of portions of the Buddhistic work known as the Apbhidharma. The sports, gifts, and amusements each day and night were similar to those of the previous days and nights.

On the morning of the 20th all the relics will be removed from the P'ramane. The procession, starting at the east gate, will pass Fort Padet Dasakon and be conveyed thence into the palace.

Thus will end the ceremonies of the grand cremation of 1881, in Bangkok. The two sides of Messrs. Ramsay & Co.'s establishment were heavily and gracefully draped. The side of the building, in front of which the procession passed, displayed at the north end the monogram of Her late R. H. Somdetch Chowfa Kanabhorn, in the center the coat of arms of H. M. the King, and at the south end the monogram of the late Queen. This token of respect was gratefully acknowledged by H. M. the King.

The King of Siam is the symbol of the national authority and power. All positions, ranks, and emoluments in the kingdom are at his disposal. These cremation ceremonies grew out of the exercise of H. M.'s right as the King of Siam, and the cordiality, and unstinted generosity of the people demonstrated their hearty acquiescence in this exercise of his rights; and the promptness with which they fully honor all the positions he creates as their sovereign indicates their attachment and loyalty to him.

We herewith append a copy of a few of the pretty and really good mottoes that were worked and placed on exhibition by Lady Prayah Bhachakarawongse:

"Three things to be prepared for: change, decay, death. Three things to admire: intellectual power, dignity, cheerfulness. Three things to hate: cruelty, ignorance, ingratitude."

#### THE P'RAMANE BUILDINGS.

The space of ground located between the first and second King's palaces is occupied for the cremation purposes. A good street bounds this rectangular lot on the east, north, south, and west. On the east side of the east street are twelve large and twelve small towers from which are displayed fireworks every night during the cremation ceremonies. There are posts connected with wires, and when H. M. the King appears at his pavilion, men holding in their hands a bunch of peacock feathers perform the perilous task of walking these wires, to the amazement of the spectators. On the same side of this street, near the First King's palace, are large bamboo sheds with attap roofs where tea, water, and provisions are supplied to the ordinary native spectators who may need, during their visit, refreshments and rest—free.

Along the northern side of the south street are a number of bamboo halls, with attap roofs, and the large hall of His Royal Highness Bhanurangsi Swang Wongse, where ministers, foreign representatives, and Siamese officials can obtain meals, refreshments, and rest, free. Beyond these halls, about the center of the grounds, is a spacious and elegant pavilion, covered with red cloth, where His Majesty comes each afternoon, meets his assembled courtiers and the foreign representatives, and with them observes the numerous sports that are designed for the entertainment of the assembled crowds—the men walking on wire cords, the fencers, boxers, and contests with different kinds of weapons, the Siamese, Chinese, Peguan, and other plays that are being enacted. While here, presents of silver and gold ornaments and tickets to draw specified prizes are scattered among the crowds of common and noble people. The King personally makes presents of choice and costly articles to those in his immediate presence. The value of the articles thus given to the spectators and the contestants is by no means a trifling sum each day that the ceremonies are going forward.

On the west and north street are temporary halls for rest and amusement and refreshment for the going and coming crowds.

The real buildings of the P'ramane are inclosed with a square bamboo wall. At the middle of the east and west wall is a wide entrance to the whole scene, and admits the sight-seeker to the great central building, which is cross-shaped, with its north, east, south, and west wings. Each of the gates giving entrance is cross-shaped. The roof of each arm of the cross is in four sections. The base of the spire is five-sectioned, and the spire is quadrangular, rounded on the top and tapering with a spire like the P'ra prahn spire; at each corner of the square is a similar but shorter spire. On each side of the gate spire are five chats, with seven sections; over these, two more sec-

tions; then tapers off to a spire. On each side these chats, two are of silver, two of gold hue, and one crimson. From gate to gate there is a continuous roof, forming a long open hall. At each of the four corners of the square is a building. The inner side of this long hall is painted with scenes represented in the great Indian work which has been translated into Siamese and is known as the Ramakien. Between each gate there is a line of six lamp-posts. The lamp-post on each side of the gate has five branches, with a globe glass each. The other lamp-posts have a single globe each.

The inclosed area is covered with a thick mat of bamboo slats, to prevent the possibility of a muddy surface should heavy showers of rain fall during the ceremonial days. From each gate to the center building the thick bamboo-mat floor is covered with thinner rattan mats, making an easy walk to the central building. This walk is covered with an awning.

The ascent to the four halls of the central building is by sixteen steps. On each side of the first step is a large globe lamp, and by the railing of the steps, on each step on each side, is a flower-pot containing rare and beautiful plants. On each side of these stairs are six lamp-posts, each with a glass globe shade. Having reached the first ascent, on the walk of the second section, all round the building are lamps, three on each side, and between them are flower-pots. On the ground floor, on each side of the gate, near the long open hall, are two small square halls, with a four-section top, with curved corners. In these halls will be exhibited mellow white lights during the firework exhibition each night.

#### WEST VIEW OF THE MAIN BUILDING, AT WEST GATE.

The roof and elevation is T-shaped. The roof on each arm of the T is four-sectioned and the ends of the sections of the roof terminate in a curve pointing skyward. Only the royal palace and temples can display such curved ends. The walls on all sides of the T show even pillars, pleasantly displaying green lines, gold borders and trimmings. From the eaves of the roof were pendent tassels. On each side of the stairway is a hall, with tables and rare and quaint goods on exhibit, also a small hall with a spire and a two-sectioned roof.

#### HALL OF THE WEST END OF THE MAIN BUILDING.

The ceiling of this hall is beautifully decorated. From it are suspended three lines of five chandeliers each, between which are pendent bouquets of artificial flowers of pleasing design, looking so fresh and beautiful the beholder does not dream that they are artificial. Having described one hall of the main building, or one side of the Pramane square, the description in all essential features is a picture of the other halls and sides of the square.

The central spot formed by the convergence of the four halls has an imposing grand stand or altar, in full view of the multitudes who may be assembled in each of four halls. On this altar were placed the precious idols, relics of the deceased and relics of their ancestors. This central space may at any time be closed from public gaze by drawing the rich screens of gold cloth that are kept hooked in graceful lines so as to expose the rich, costly, and gorgeous treasures on the attractive altar.

#### OBJECTS ON GROUND FLOOR OF THE INCLOSURE.

At each corner are halls, with five-sectioned spires, resembling the central. In these halls are artificial mountains and streams. At each entrance are gas-lamps with two glass globes each. Mirrors are so arranged as to reflect and multiply the objects. These halls are decorated with artificial flower-pots, and are made to look cheerful and inviting, with winding artificial vines and their flowers.

#### ROOMS AROUND THE BASE OF THE MAIN BUILDING.

One room represents a shop, where are manufactured Siamese theatrical masks, and life-like figures of workmen and proprietor of the establishment are to be seen. In moving around the base there is a display of many familiar, pleasant, and grotesque objects. Here may be seen a Chinese mason, and his coolly attendant handing him mortar. There, an earthenware manufacturing establishment, where may be seen proprietor, workmen, tiles, bricks, earthen pots in all stages of formation, and completed articles exposed for sale to the eager customer. All kinds of mechanical establishments, tool manufactures, carpenter, weaving, tailoring, gilding, chemist, druggist, and sundry establishments too numerous to describe in detail.

#### WINGS OF THE MAIN BUILDING.

In each hall of each wing are five windows. The leaves of the windows have painted on them imaginary beings. Hanging from the upper sill of each window is a

basket of beautiful artificial flowers. Hanging on the walls above each window are instructive and highly improved Bali mottoes, in the original and translated. Between each window stand against the wall three pretty racks, holding glass cases, inclosing specimens of artificial plants and birds. Each ceiling is sectioned.

#### THE GRAND ALTAR.

This is surrounded with a rail, with lamp and candle stands. The altar is five-sectioned. There is an ascent to it of five steps between the four main posts that support the building and its spire. Each angle of the higher ascent is decorated with pairs of gold five-sectioned parasols. On the top of the altar are two seemingly massive gold stands, over which are hanging two white seven-sectioned umbrellas, known as the Sawatrechat. These can hang over only images of Buddha or over royal personages. In one sense they are insignia of royalty.

Between these white umbrellas are pending beautifully designed bouquets of artificial flowers. The ceiling over this altar and from which the insignia of royalty and the artificial flowers are pending has a bright red back-ground, highly adorned with gold ornaments. Gold five-sectioned parasols specially abound about the stands on the altar.

The wall of each of the four halls diverging from the altar, the great objects of attraction, are covered with paper made and printed with beautiful designs in Siam. The great pillars which support the entire establishment are likewise decorated with paper. The floor of these halls is covered with Brussels carpets of rich colors.

#### SOUTH SIDE OF THE SQUARE.

This side differs from the east and west side. The middle portion of this side has rooms and halls that are under a roof covered with red cloth, and furnishes His Majesty the King and the members of the royal family retiring and resting apartments. In one of these halls suspended from the ceiling are three lines of ornaments—one line of chandeliers and two of artificial flowers. In this hall likewise are two altars. The middle altar is to receive the bone relics of the former Kings of Siam. Over this altar is the white Sawatrechat, insignia of royalty. On the altar on the west side are to be placed the bone relics of eminent persons not royal, but who are related. There is in this hall a white stand, on which a prominent priest will sit and go through certain formal rehearsals.

Another hall under this roof is especially designed for His Majesty and is grandly decorated and furnished. Many beautiful motto-frames hang against the walls. These mottoes are worked in silk, and are very pretty and instructive. There are many beautiful paintings, racks containing plants, birds, &c. There are representations of scenes from the Ramakien. The figures are covered with gold and are designed as presents. The sofas and chairs in this hall are covered with rich damask. In the center of the hall is a table. The doors and openings are draped with black screens with a white border. The floor is covered with a rich Brussels carpet. In the center, suspended from the ceiling, is a chandelier surrounded with four pendants of artificial flowers. On the east and west side are a marble pillar stand. A door from this hall on the east opens into a retiring-room filled with numerous and costly presents. From this room there is access to a sleeping-chamber, with its rich adornments and all the conveniences for retirement, rest, and slumber. Its screens, mirrors, bed-stand, wash-stand, &c., betoken that they are for royal use.

From the apartments of His Majesty there is access to the apartments of the Queen, where there is again a complete set of apartments. The room, door, and openings of the Queen's apartments are draped in black, with white border. These compartments have their tables and brass chairs. Some of the chairs are covered with green damask. The rooms in the Queen's apartments are beautifully decorated. Here also abound racks and stands covered with numerous and costly presents.

#### THE NORTH SIDE OF THE SQUARE.

This side is much like the south side. The center halls are covered with a red cloth, and rooms are full of presents for the priests. H. E. P'rayah Bashakarawongse and his talented and estimable lady are in charge of these halls and presents. Many of the mottoes in all parts of the cremation buildings were done under the supervision of this lady. Her genius and industry were manifest in very many places.

Much talent, skill, and industry is everywhere represented, and we regret that it is not in our power, for want of knowledge, to award to each a full measure of credit.

#### THE EAST SIDE OF THE SQUARE

is in all respects like the west. The entrance on this side is important, as through it the urned remains enter, and, having been drawn up an inclined plane into the east

hall of the main building, they are placed upon the altar in the center, from which the four halls of the main building diverge.

#### H. R. H. SOMDETH CHOWFA BHANURANGSI SWANG WONG'S REFRESHMENT HALL.

This hall deserves a passing notice. It is located on the southeast corner of the cremation lot. It is a spacious hall, with an attap roof, and is accessible on the east and south sides from a street. There is a large corridor on the east, which is evidently the front of the building. On the south end of the building is a dining-hall, with a table like a letter T, where, when the attendance of foreigners was large and promiscuous, the representatives of the foreign powers were entertained. Back of this dining-room was another room, designed as a retiring-room for ladies. Next to this hall was the provision-room. Beyond this was a large spacious hall, on the west side of which was a very long table, capable of accommodating a very large company. On the east side of this hall were small tables capable of seating four persons, adapted for select companies. Beyond this room was a spacious hall filled with chairs for the accommodation of a large company and open on three sides, so that the occupants had the most favorable position possible for observing the processions, the fireworks, and the numerous sports and amusements that were being enacted while His Majesty the King was in his pavilion during the afternoon or evening.

The veranda on the east side of the building was reserved for the agents, commissaire, and consuls of the foreign powers on the day of the grand procession for conveyance of the urned remains to the P'ramane buildings.

#### AN AMERICAN TRAVELER.

In making the circuit of the globe, Captain Hooton, of the United States Army, is spending a few days in Siam. During the cremation exercises he was attached to the staff of General Halderman, the American consul.

#### CASUALTIES.

We hear that several have died from heat, fatigue, and overcrowding while witnessing the great cremation ceremonies.

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## A U S T R A L A S I A .

### THE SAN FRANCISCO MAIL SERVICE.

#### REPORT BY CONSUL GRIFFIN, OF AUCKLAND, NEW ZEALAND.

The contract of the Pacific Mail Steamship Company with the Governments of New Zealand and New South Wales will expire on the 15th of November, 1883. The subject of the renewal of this contract and various other methods for the transportation of the English mails are being very generally discussed by the different chambers of commerce and the newspaper press of New Zealand.

Much credit is due to the government of this colony for the part it enacted in the establishment of the San Francisco mail service. Indeed, New Zealand appears to have been the prime mover of the undertaking. Her legislative assembly has always been intelligent enough to see that the safest and speediest mail line from here to England would be across the Pacific, and it has made several energetic efforts to secure such a service. The first attempt made was to establish a mail service via Panama. A line of steamers was subsidized to run to the terminus of the railway of the Isthmus, from which the mails were transported to the Atlantic side. A series of misfortunes befell this service. The vessels were frequently quarantined. They were not well patronized by passengers, and many who did patronize them died on the route. The

company failed to make prompt connections; the mails were not infrequently delayed weeks at a time. The ships were too small for large ocean service. New Zealand endeavored to secure assistance from the Imperial Government and from the Australian Colonies, but did not succeed in doing so. The Governments of Victoria, Queensland, Tasmania, and New South Wales clung to the route via Suez Canal, and in February, 1868, the route by way of Panama was abandoned. Inducements were now held out to New Zealand to join the Australian Colonies in an Eastern service. Although disheartened, New Zealand did not heed the overtures. The completion of the Pacific Railway across the continent in 1869 induced the government to make another attempt. She sought the assistance of the United States. It was believed that a line of steamships plying between San Francisco and New Zealand would greatly increase the trade and commerce between the two countries.

In 1870 a contract was entered into with W. H. Webb, esq., for the employment of a line of steamships; the Nevada and the Nebraska and other vessels were secured. None of the Australian colonies joined in the contract. It was hoped that the Government of the United States would assist the line, and strong efforts were made by Mr. Webb to secure that assistance. The United States, however, declined to aid the enterprise. The result was a collapse on the 20th of February, 1873.

New Zealand, notwithstanding this defeat, refused to give up her favorite project. The population of the colony at that time was nothing like as large as it is at present, but the people were determined to have a short mail-route to Europe. Circumstances soon arose which gave them new energy and hope. The colony of Victoria had managed to secure preponderating influence in the Suez mail service. It was able to conclude contracts for its sole benefit, to prohibit the mail steamers from landing at Sydney and other ports in New South Wales, and to dictate to all the other Australian colonies in matters of postage. This state of affairs aroused the indignation of New South Wales, and led that colony to take a favorable view of a proposition from the New Zealand Government for a mail service to San Francisco, and from thence across the American continent to London.

Negotiations were at once begun, and resulted in what was known as the Hall-Forbes contract, by which steamers were chartered from the Australian Steam Navigation Company and an American firm. The route chosen was by way of Kandavu, Fiji Islands; Honolulu, Hawaiian Islands and San Francisco, Cal. Freight and passengers were transhipped at Kandavu, Fiji, the main steamers alternately going down the coast of New Zealand and on to Sydney, thus securing to each colony perfect equality.

The difficulty of the Fiji and New Zealand coastal navigation operated against this service. One of the largest steamers, the Macgregor, got ashore at Kandavu, and the line proved unprofitable notwithstanding a large subsidy, and the contract which began on the 27th of November, 1873, terminated in 1878 through the defaulting of the contractors.

The two colonies, after negotiating with the Australian Steam Navigation Company and an American firm for a temporary service, now set themselves to work for the purpose of establishing a permanent one, with steamers of large tonnage. The governments of the two colonies agreed to give each a sum of £45,000, making in all £90,000 per annum, to the line. It was arranged that the main down-boat should go to Sydney, transshipping at Fiji the New Zealand mails and passengers and cargo into steamers which should continue the outward service. New Zealand

was chosen as the place from which all the outward steamers started. Tenders having been called, a contract on this basis was concluded with the Pacific Mail Steamship Company, guaranteed by John Elder & Co. and G. R. Macgregor, of Great Britain. This contract insured speed at the rate of 11 knots per hour. It was signed in July, 1875, and began with temporary steamers, while others, namely, the City of New York and the City of Sydney, were being built in America, and the Zealandia and Australia in England. In September, 1876, the contractors, finding that the New Zealand coastal service endangered their steamers and necessitated the employment of five instead of four vessels, gave notice of their intention to abandon the service unless Fiji was left out and the through steamers allowed to call only at Auckland or some safe port in New Zealand and then go on to Sydney, and *vice versa* on outward trips. They offered this service at a reduced subsidy.

After much negotiation a new agreement was made on the 17th of April, 1877, in which the subsidy was reduced to £72,500, of which New South Wales was charged £40,000, and New Zealand, in consideration of providing her own coastal service, which was secured under other management, was charged only £32,500.

This contract has since continued, working satisfactorily to both colonies, the steamers always making the voyage within contract time; but it must be borne in mind that circumstances have occurred to render this line less valuable than it formerly was to the people of New South Wales. The power exercised by the colony of Victoria over the Suez line has, during the last five years, been materially modified. She is no longer able to dictate terms to the other colonies. The steamers of the Suez line now make fortnightly trips and land at Sydney, New South Wales, thus furnishing a cheaper and more expeditious route for mails.

The mails by way of Suez are now closed in London at least twenty-four hours later than the mails via San Francisco; moreover, the Orient line, with their splendid steamers, also make fortnightly trips from London to the Australian colonies, and afford additional mail facilities. Indeed, it appears to me that the only reason which could possibly induce New South Wales to continue the mail service via San Francisco would be to increase the trade and commerce between that colony and the United States. The people of New South Wales, of New Zealand, and, indeed, of all the Australasian colonies, have come to regard the tariff of the United States as hostile to the best interests of both America and Australasia. It is well known that there are few manufactories in Australasia, and that her people are not only obliged to import manufactured goods, but to import machinery for the manufacture of such articles as they are able to make at home. In order to show how few manufactured articles are exported from the colonies I will mention that while the total value of the exports of the colony of New Zealand for the year 1879 was £5,563,458; of this, £3,126,439 consisted of wool, £1,134,641 of gold, £520,806 wheat, £111,742 oats, £145,595 tallow, £147,535 kauri gum, £54,214 preserved meats; the remainder consisted of minor raw products.

New Zealand, however, is more interested in the continuation of the Pacific mail steam ship service than any of her sister colonies, and the North Island of New Zealand is more interested than any other part of New Zealand. Indeed, the different chambers of commerce of the Middle Island, which is sometimes called the South Island, are energetically discussing the question of the abandonment of the San Francisco mail service altogether.

Mr. McKerras, of Dunedin, has brought before the committee of the

chamber of commerce of that city a proposal for direct steam communication between New Zealand and Great Britain, and so far as I can learn the proposition is very favorably received there, not only by the chamber of commerce, but by the press and people.

The Auckland (New Zealand) Herald, however, regards the proposal as startling and deserving of the bitterest condemnation. In commenting upon Mr. McKerras's proposition it says, in its issue of May 18, 1881:

His plan is to make Dunedin, with its shallow harbor and dangerous bar, the first port of arrival and last of departure of the direct service boats, when once the San Francisco service was terminated. In the scheme which he propounded, Auckland was to be blotted out. The boats of the new service were not to be allowed to visit this harbor; why, we do not know, unless it was from a conscious fear that the comparison of the safety and commodiousness of the two harbors would be unfavorable to the one at Port Chalmers.

Mr. A. C. Wilson, the chairman of the chamber of commerce of Christchurch, referred also to this subject in that body on the 12th of this month. He pointed out that the rights of Auckland could not be so easily set aside as Mr. McKerras desired, and that the probability was that instead of the San Francisco service being abolished to establish another which would require some £30,000 to £50,000 per annum from the pockets of the rate-payers to keep going, the mails and passenger service would be conducted in future upon strictly commercial principles, without any fostering subsidy whatever. The people here are of opinion that the trade of the colony is now sufficiently large to tempt the Peninsular and Oriental Company or the Orient Company to send one of their large boats regularly to a New Zealand port.

It is believed that the traffic in frozen meats will swell the trade to vast proportions. Two years ago, when an attempt was made to establish a direct steam service with Great Britain, the steamer that came out from London to Dunedin had to pass on to Lyttleton, it being too dangerous to cross the Port Chalmers bar. It is probable that the ports of Auckland, Lyttleton, and Wellington are alone suitable for the largest class of ocean-going steamers calling at all states of the tide and at all kinds of weather. The people here argue that if a direct steam service is established, then the nearest route should be selected; and that Auckland is the nearest port to Great Britain, any one can see at a glance by consulting a good chart. The Torres Straits is traversed monthly by the steamers that convey the Queensland mails, and there is nothing to prevent the same straits being traversed by the steamers making a direct passage from New Zealand to Great Britain. If that course is followed from Auckland, and by way of the Suez Canal, it will be found that the steaming distance is at least a couple of thousand miles less than by way of the Cape of Good Hope. Indeed, by way of the Torres Straits and the Suez Canal, any port north of Dunedin is nearer to London than Dunedin is by the way of the cape.

In any event, however, the inhabitants of the north island of New Zealand will not give up the Pacific mail service without a struggle. The London mails via San Francisco have been delivered in Auckland within 38 days, in Wellington 41 days, and in Dunedin in 42 days. The average time for the last twelve months was, Auckland 40.17 days, Wellington 42.17, Dunedin 43.92 days.

The homeward mails via Brindisi reached London on the average in 50.17 days from the Bluff (South Island), 50.33 from Dunedin, and in 53.5 days from Wellington. The shortest delivery was accomplished in 48 days from the Bluff and Dunedin, and in 50 days from Wellington. The longest transit from the Bluff occupied 54 days, from Dunedin 55, and from Wellington 57 days. The outward mails from London via

Brindisi were delivered on an average in 47.12 days to the Bluff, 47.5 days to Dunedin, and 49.62 days to Wellington. The quickest transit to the Bluff was 44 days, to Dunedin 45 days, and to Wellington 46 days. The longest delivery occupied 54 days to the Bluff, 55 days to Dunedin, and 57 days to Wellington. The steamers of the Orient and of the P. & O. lines are very powerful boats, built for 16 knots, and do their utmost to quicken their speed. The San Francisco boats are only 11 knots. The line could be improved by putting on faster steamers and by shortening the schedule of the time of the Pacific Railway across the continent. By referring to the chart it will be seen that the route could be still further shortened four or five days by avoiding the port of Honolulu, Hawaiian Islands. The abandonment of the Pacific Mail Steamship Service would materially injure the trade and commerce between the United States and Australasia.

Every one of the Australasian colonies appears to be going ahead. The exports of South Australia for 1880 exceeded in value those of the previous year by over half a million sterling. The increase on the previous year over its predecessor was £800,000; the two years therefore show an increase of £1,300,000. The exports of New Zealand are now in excess of her imports, and the value of her imports show no sign of falling off.

The value of the imports of New Zealand for the quarter ending March 31, 1881, was £1,788,819 against £1,557,918 for the corresponding quarter of last year.

The returns of Victoria, Tasmania, Queensland, New South Wales, and South Australia, for the present quarter, have not as yet come under my observation, but I do not doubt that they show equally as satisfactory state of affairs.

G. W. GRIFFIN,  
*Consul.*

UNITED STATES CONSULATE,  
*Auckland, N. Z., May 20, 1881.*

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## THE WHALE FISHERIES OF NEW ZEALAND.

REPORT BY CONSUL GRIFFIN, OF AUCKLAND.

The presence of a fleet of American whaling vessels from New Bedford, Mass., now in the waters of New Zealand, has directed my attention to the condition of the whale fisheries of this colony. The principal ports of New Zealand for whaling vessels are Russell and Mangonui. There appears to be no just reason why these ports should be preferred to others of the colony, unless it is that Russell and Mangonui are small places and do not offer as great inducements for the men to desert their ships as the larger cities, and that it is always difficult to supply the loss of trained men for whaling purposes.

The whale fisheries of New Zealand, like those elsewhere, have declined rapidly during the last thirty years, but they now appear to be rallying again. The cause of their decline has doubtless been the substitution of other material for whalebone and the discovery of kerosene and other lubricating oils, which have taken the place of whale and sperm oil. A large number of whaling stations were established along the coast of New Zealand as far back as 1825. The industry has been a very lucrative one. Few ships that ventured to these shores were unsuccessful in obtaining full cargoes of oil and bone.

4 JULY

I find that the industry was most successfully pursued by what was known as "shore parties," who located themselves at eligible points all round the coast of the islands. The method of catching whales by shore parties was first started in New Zealand by some of the rough white adventurers from the Australian colonies, who had for many years previously pursued the arduous life of catching seals in boats and small crafts along the coasts of the Middle Island and Foveaux's Straits. They were encouraged to engage in the pursuit of the whale and to form establishments for that purpose on the shores of Cooke's Strait. Upon hearing of the success of these shore fisheries, the people established whaling stations at Wellington. Some also were started at various points on the west coast of the North Island, near New Plymouth, and a large number at various places on the east coast of the North Island, between Cape Palliser and East Cape.

These stations were fitted out for the capture, chiefly, of the black or "right" whale (*Balaena antipodum*), which approached the shores of New Zealand in large numbers, during the calving season, from May to October inclusive. Very frequently the sperm whale, the hump back, the pike-headed, and other species came near enough, also, to be captured by the shore parties. The stations were generally established near a projecting headland, close to which there was deep water, and where, from the lofty summit of the headland, a good view could be had of the offing, and of any whales which might chance to sport there. These advantages rendered the site an eligible one. The season for which the men engaged themselves began with the month of May and lasted until the beginning of October, extending through a period of five months, which in New Zealand includes the winter season. During these months the cow whales resort to the coast with their young calves.

It required a large sum of money to equip a whaling station. A pair of sheers, such as are used for taking out or putting in the masts of ships, had to be erected in order to raise the immense carcasses above water, so that they could be more conveniently and expeditiously cut up. It was also necessary to build "try-works," as they were called, being furnaces for melting the blubber. Storehouses were erected and well supplied with spirit, cord, and canvas. Three or four well-built and well-found boats completed the outfit. All these establishments seem to have been conducted on the same system. The men employed in the active part of the work received a certain per cent. of the oil procured, and the remainder was the share of the merchant at whose expense the station had been fitted up, and who had also the advantage of taking the oil at his own valuation, which very generally was largely in his favor. In looking over some old records kept at one of the stations near the East Cape, I find that in one year 41 whales were caught which yielded 145 tons of oil and 1½ tons of bone. I have been informed by old whalers here that as much as 14 tons of oil had been obtained from one whale. A breeding cow and calf produce about 1 cwt. of bone to 1 ton of oil, but a small fat whale a much less proportion.

The flourishing condition of the fisheries attracted vessels from all parts of the world. In 1843 as many as twenty whaling vessels were seen at one time in the harbor of Otago, Middle Island. At a later period Russell, Bay of Islands, became the favorite resort of the whalers. The fisheries, however, began to decline rapidly, notwithstanding the employment of an increased number of boats and men. The places which were once the favorite haunts of whales soon became entirely deserted by them. The country at that time was without a representative form of government, and no laws were enacted to protect the fish-

eries. The whales frequenting the coast of New Zealand were soon extirpated or driven off to other regions. They were attacked by the shore parties the moment they reached the coast, when they had generally by their side a calf too young to support itself without being suckled by the mother, and which perished as a natural consequence of her loss. Had an act been passed making it unlawful to kill the whale until a later period in the season, many of the calves would have been spared to return the following year.

#### PROTECTION OF THE WHALE FISHERIES.

In 1858 the legislative assembly of New Zealand, with a view of improving the condition of the whale fisheries, passed an act, which is still in force, requiring the proprietors of whaling stations to give valid security on future produce of oil and bone. There had been very general complaint among the whalers that the merchants would not advance money or goods without legal security. The act enabled the merchant to receive a mortgage on the oil and bone which the proprietors of the whaling stations might obtain during the ensuing season. The mortgage must be in duplicate, and recorded, so that no subsequent sale by the whaler can affect the security. If the whaler should refuse to deliver the oil and bone specified therein, the owner of the security can take possession of the same.

This security is made transferable by deed, and by indorsement, and every transferee has the same right, title, and interest as the person in whose name such security was originally taken. The security can also be canceled by the registrar, at any time, at the request of the owner. The act further provides that if fraud should be practiced on the owner he can recover double the amount of the consideration named in the mortgage, and every one found aiding or abetting such frauds shall be fined double the amount of the consideration.

#### THE METHOD OF CATCHING THE WHALE.

The proprietor of one of the whaling stations on the North Island has described to me the method of catching the whale by the shore parties. The men are enrolled under three classes, viz, headsman, boatsteerer, and common man. The headsman is the commander of a boat, and his post is at the helm, except during the time of killing the whale, which honor also falls to his lot. The boatsteerer pulls the oar nearest to the bow, always steering under the direction of the headsman, and fastens the harpoon to the whale. The headsman then kills the whale. The common men have nothing to do but to ply their oars according to orders, except one called the tub-oarsman, who sits near the tub containing the whale line, and sees that no entanglement takes place.

The wages are the shares of the profits of the fishery, apportioned to the men according to their rank. The headsman gets more than the boatsteerer, and the boatsteerer more than the common man. The leader of the party commanding the boats is called the chief headsman. A certain code of etiquette, or laws, exists among the whalers. This code has been handed down by tradition, and is in all cases faithfully adhered to. It regulates and settles the various claims to the whale. Each station has its own laws and customs. It is a fundamental rule, however, among all of them that he who once made fast has the right to the whale even should he be obliged to cut his line, provided his har-

poon still remains in the whale. Each harpoon has its owner's private mark, and there can be no dispute about the ownership of the weapon. The boat making fast to the calf has a right to the cow, because it is well known that the cow will not desert her young. A boat demanding assistance from a rival party must share equally with the party granting the assistance. These unwritten laws are universally recognized among whalers. A dispute seldom occurs as to the ownership of the whale. Should such a dispute arise it is always satisfactorily settled according to the code.

The whale-boat used by the shore parties differs in size and construction from those used by whaling vessels. The former is clinker shaped, sharp at both ends, and is higher out of the water at the bow and stern than it is amidships. It is usually about thirty feet long, and narrow in width, and especially adapted for riding upon the surf. A platform is erected at the stern, reaching forward about six feet, even with the gunwales. To this is attached a cylindrical piece of wood used for checking the whale line, and it is a custom to cut a notch in this wood for every whale killed by the boat.

#### THE LOOKOUT FOR WHALES.

A constant lookout for whales is kept from a site near the station, and when a whale is sighted three or four boats are immediately launched and proceed at racing speed, the spout of the whale, like a small column of smoke on the horizon, indicating the direction to be taken. When the fastest boat reaches the whale, the boatsteerer drives the harpoon straight into the animal. A turn is taken around the loggerhead to check the rapidity with which the line runs out, and the boat flies through the water, forming ridges of foam high above the sides. The skill of the headsman is now shown in steering and in watching the course of the whale. Other harpoons are thrown into the animal, which, after diving several times, soon becomes exhausted. The headsman then lets fly his lance into the spot where life is said to be. The animal soon afterwards spouts thick blood and is a sure prize. This method of catching whales is, however, not so satisfactory or profitable as that pursued by whaling vessels, and is principally practiced now by the Maori, or native race.

#### THE SPERM WHALE.

The sperm whale is more frequently met with in the New Zealand waters than any other kind of whale. Mr. Eldridge, the first officer of the American bark Janus, informed me that during last March he saw forty or fifty of these whales near the East Cape. The sperm whale travels at the rate of four or five miles an hour. Adult females or those with young in their company evince a strong affection for each other, and when one is killed or sustains injury the parents or companions hover about, and even render assistance. The whalers take advantage of this trait and kill a number before the others make off. When, however, a company of male whales are found, and one is attacked, all the others desert their wounded companion. The whale will sometimes lie with its mouth wide open as if baiting for the "squid," its principal article of food, and will close upon it like a trap. Some say that the squid is attracted by the pearly teeth of the whale. The sperm whale is known by the act of blowing, which is performed with regularity every ten minutes. The spout sent up can be seen at a distance of three miles. Mr. Eldridge tells me that when one is sighted, the boats leave the ships

very quietly, the men making as little noise as possible with their oars and paddles. When struck, the whale generally sounds or descends to a great depth, taking out the lines belonging to the boat. When spent with the loss of blood it becomes unable to sound, but passes rapidly along the surface, towing after it the boats. If it does not turn, the men draw in the line and dispatch him.

When a whale is killed, the boats are fastened to its body and brought along side the ship. A hole is cut back of the head, a hook is inserted, and the fat or blubber is cut in long spiral-shaped strips and hoisted on deck. The head is then opened and the spermaceti taken out. The fat is then boiled on board in the furnaces, the scraps serving as fuel. The oil is then put in casks. It is generally supposed that it is water which the animal propels through its vents, but such is not the case. It propels the vapor of water just as all animals expire their breath, only the vapor on coming in contact with the cold air immediately condenses at first in a white cloud and afterwards in a small fine rain. The volume of air thrown up along with the surrounding moisture and condensed vapor often rises in a great jet.

Sperm whales travel the seas in great herds, from 100 to 300, and they are said to acknowledge a leader, who swims in advance and gives the signal of combat or flight by uttering a peculiar roar. It can remain under water for an hour and twenty minutes at a time; sometimes it leaps out of the water fully twenty-five feet into the air and shows its entire body.

The neck *vertebræ* of the sperm whale are fused together. The upper surface of the broad shoe-shaped skull has a large basin-like cavity, wherein the spermaceti is lodged.

#### AMBERGRIS.

The sperm whale is also remarkable for the ambergris which is sometimes found in it. Ambergris is the most precious of all the ingredients used in the manufacture of perfumes. It is now very generally acknowledged to be a morbid secretion of the liver of the spermaceti whale. It is remarkable that the two most precious products of the sea, ambergris and pearl, are the results of disease. Ambergris is found floating on the ocean and is sometimes washed ashore. It is a little lighter than water and bears some resemblance to the bark of a tree. It is described as of a waxy nature, streaked with yellow, gray, and black, and emitting a peculiar aromatic odor. It fuses at 140° and 150° Fah., and at a higher temperature gives out a white smoke, which condenses in a crystalline fatty matter. It varies in size from 1 to 30 pounds, but occasionally pieces are found in whales weighing from 100 to 200 pounds. Its use in the manufacture of perfumes is not so much, on account of its fragrance as the peculiar property of causing other ingredients to throw out their odors. It is compared, in this respect, to mordants in dyes, without which the color would fail to become permanent. Perfumes that contain ambergris are very expensive, and those made without it smell of alcohol. It varies in price from \$12 to \$50 per ounce.

#### THE NEW ZEALAND BERARDIUS.

Among the whales peculiar to this colony is the New Zealand *Berardius*. It is a species of Zephoid whale. One was captured, not long ago, off the coast of Canterbury. It was described by Dr. Julius

Haast as 30½ feet long, of beautiful velvety black color, with a grayish belly.

The female *Berardius* gives birth to a single young one, in the autumn. They feed chiefly on cuttlefish. The skull is most peculiar in having two crests at the occiput, of most unequal size and figure, and the cheek bones at the roof of the beak are raised into a pair of huge elevators. The upper jaw is toothless, and the lower jaw has only two or three small teeth. The neck vertebræ are united, and, moreover, the stomach is remarkable, even among Cetaceal, for the number of chambers it contains, there being six or seven divisions.

#### THE RIGHT WHALE.

The right whale (*Balaena antipodium*) is often caught in the New Zealand waters. In this animal the baleen plates take the place of teeth and hang suspended from the roof of the mouth.

Captain Grant, of Horatio, is said to have captured a whale off this coast, New Zealand, yielding over two tons of whalebone. The baleen plates vary in size from a few inches to 12 feet in length. Their chemical composition is albumen, hardened by small particles of the phosphate of lime. In their natural state they are of a bluish-black color, striped with white. They are covered with small fibers, which are carefully scraped off; the plates are then boiled until they are soft enough to cut; the color being objectionable, they are dyed black before being sent to market. The dyeing is generally done during the process of boiling.

#### AMERICAN WHALERS IN NEW ZEALAND.

In 1878 the number of whaling vessels which arrived at the various ports of New Zealand was 13, with an aggregate tonnage of 3,422. In 1879 the number was 15, and the tonnage 3,792.

Captain Fisher, of the American whaling bark *Alaska*, now at Russell, Bay of Islands, New Zealand, informs me that he has cruised off the coast of these islands for a period of six years, and during that time he has taken over 7,000 barrels of sperm oil, which he thinks is above the amount taken by any other vessel in the same length of time. He took home with him on his last voyage, according to the New Bedford Republican Standard, the most valuable cargo of sperm oil ever brought to that place, which is a good deal to say, inasmuch as New Bedford is the largest port for whaling vessels in the world. Captain Fisher writes me at Russell, Bay of Islands, New Zealand, under date of the 13th of May last, "that he will sail for New Bedford on the 20th instant with 930 barrels of oil (800 sperm and 130 whale oil) and about 600 pounds of whalebone."

I give below a table showing the quantity and value of whalebone, whale oil, and sperm oil exported from the various ports of New Zealand for each year since 1869 to 1880.

Table showing the quantity and value of whalebone, whale oil, and sperm oil exported from New Zealand for each year from 1869 to 1880, inclusive.

Year.	Whalebone.	Whale oil.	Sperm oil.	Value in American currency.
	Pounds.	Gallons.	Gallons.	
1869 .....	5,148	18,509	7,640	\$1,525 00
				17,190 00
				5,835 00
1870.....	5,959	23,769		1,698 00
				20,095 00
			29,978	83,500 00
1871.....	3,017	3,893		1,260 00
				2,840 00
			42,920	58,625 00
1872.....	6,712	40,070		3,800 00
				41,285 00
			2,982	3,160 00
1873.....	3,544	5,787		560 00
				4,205 00
			6,958	10,285 00
1874.....	6,231	11,790		2,200 00
				9,650 00
			6,984	10,550 00
1875.....		14,108		10,500 00
			12,812	24,470 00
1876.....		4,536	22,827	2,250 00
				32,275 00
1877.....			15,004	20,160 00
1878.....			18,483	25,205 00
1879.....		4,640		3,640 00
			15,717	18,725 00
1880.....	3,584			3,015 00
		8,861	20,909	2,895 00
				26,255 00

G. W. GRIFFIN, Consul.

UNITED STATES CONSULATE,  
Auckland, N. Z., May 16, 1881.

NEW ZEALAND FUNGUS.

REPORT BY CONSUL GRIFFIN, OF AUCKLAND.

Among the various products of New Zealand, that of fungus seems to require special notice. It has been only within the last few years that public attention was first directed to it. It was not deemed of sufficient importance to be included in the list of colonial exports until 1872, and during that year about 58 tons were shipped from Auckland, the value of which was \$9,635. In 1877 the annual shipment increased to 220 tons, the value of which was \$56,590.

The following table shows the quantity and value of fungus exported from New Zealand for each year since 1872:

Year.	Tons.	Value.
1872.....	58	\$9,635 00
1873.....	95	5,975 00
1874.....	118	31,130 00
1875.....	112	28,700 00
1876.....	132	31,120 00
1877.....	220	56,590 00
1878.....	160	43,260 00
1879.....	147	25,890 00
1880.....	185	30,690 00
Total.....		262,990 00

Very few people know what fungus really is. The word itself is a generic term, and is applied to a large natural order of cryptogamic plants, comprehending mushrooms, toadstools, and indeed all the microscopic plants which form mold, mildew, &c. Among the many thousand species known to science very few of them are of any value as food.

Prof. Thomas Kirk, of the University of Canterbury, in a paper recently read before the Philosophical Society of Wellington, New Zealand, draws attention to the fact that fungus in several striking characteristics bears a similar relation to all other plants to that borne by insects to all other animals. He says a larger number of plants is included in *fungi*, regarded as a single order, than in any other group of similar nature. The largest number of similar animals is comprised under *insecta*. Each group exhibits a large amount of polymorphism and parasitism. Each contains many species injurious to man and but few from which he derives direct benefit. While other large groups of animals and plants are constantly yielding additions to the catalogue of organic substances directly or indirectly utilized by man, *fungi* and *insecta*, notwithstanding their vast numbers, but rarely assist to swell the roll.

Professor Kirk admits, however, that this opinion is at variance with the comparative estimates of the number of species comprised under different natural orders as stated in botanical text-books, but says that it is warranted by the known results in countries where *fungi* have been investigated with some approach to completeness. He says: "In Great Britain over 3,000 species of *fungi* are known, considerably more than twice the number of *Phænogams* and *Filicales* put together."

While I entirely agree with Professor Kirk, some botanists contend that the truth is not that the greater number of the species of fungus are poisonous and only a few edible, but that the noxious species are comparatively few, the principal danger arising from the similarity of some of the poisonous to some of the edible species and the liability to acquire poisonous properties in particular situations. This is notably true in certain kinds of mushrooms which become poisonous on account of the situation in which they are grown, but as a rule this theory is applicable only to a few varieties of *fungi*.

It appears that the export of New Zealand fungus is confined to one species, namely, *Hirneola polytricha* mont, although there are some very rare varieties bearing a close resemblance to it found in the neighborhood of Christ Church and Wellington, specimens of which were sent to the Vienna Exhibition, under the name of jew's-ear fungus (*Hirneola auricula judæ*). These specimens may be easily distinguished from the *Hirneola polytricha* by the color. The *Hirneola auricula judæ* fungus is of a pinkish tint, while the *Hirneola polytricha* is of a grayish color. The former variety is so seldom met with that it is not at all likely it will ever become an article of commerce.

The inside of the leaf of the *Hirneola polytricha* when dried is a dark reddish brown, while the outside presents glossy gray or dove color. The leaf is shaped exactly like a saucer, and varies in size from 3 to 7 inches in diameter. It is flabby in appearance, rough to the touch, and of considerable strength.

Botanists have little difficulty in distinguishing the different varieties of these plants, notwithstanding their vast number. Indeed it is claimed that each variety can be told unmistakably by the odor alone. Another peculiarity of these plants is their marvelous growth. They develop themselves more rapidly than anything else in the whole range of the vegetable kingdom. They spring up by hundreds and thousands in a single night. They are not produced by seed, but by a spawn which

bears organs of fructification. Unlike other plants, they do not absorb carbonic acid from the air and give out oxygen, but, like animals, absorb oxygen and give out carbonic acid, so that some naturalists have proposed to constitute for them a distinct kingdom of nature intermediate between the animal and vegetable.

The New Zealand fungus known to commerce is found upon various kinds of decayed timber in the North Island, in what are called new bush settlements. It favors damp localities and is very plentiful on the east coast, south of the East Cape. It exists, however, in the greatest abundance in the province of Taranaki. The province is about 80 miles long and 70 broad. It is bounded on the north by the river Mōkan, on the west and south by the sea, and on the east by a straight line from the mouth of the Patea River to a bend in the Wanganui River, and by another straight line connecting the latter river with the source of the Mōkan River. Within this region are the vast forests; indeed not more than one-tenth of the entire province is composed of open land. The process of clearing the ground is very slow. The settlers often find their task so difficult that they abandon their work in one place and begin again in another. They lop off the branches of the trees and burn them, leaving the logs upon the ground; and as they are not removed they soon begin to decay. The trees are well supplied with spurs, and fall in such a way as to partially rest upon them within a few feet of the ground. Sometimes the workmen erect scaffolds for the trees to fall upon.

It is supposed that the trees being left in this way favors the growth of fungus. It is more probable, however, that some peculiarity in the climate has more to do with it than anything else.

It requires very little trouble and no expense to prepare this valuable article of commerce for the market. Indeed, the only thing necessary to do is to gather it and spread it out on the ground in the open air or under sheds to dry. I know a number of children who make a very good living collecting it, and they have no difficulty in telling it from obnoxious and poisonous plants of similar growth.

Very few men, except those of idle and dissipated habits, engage in the employment of collecting fungus, unless I except the Maori (or native inhabitants), who do not consider that occupation beneath their dignity. The fungus collected by the natives is generally dried in smoky huts, and is on that account nothing like as valuable as that prepared by the children of Europeans. As soon as it is dried it is put in flax baskets or jute bags, and sold to the dealer for what it will bring. It is then packed in bales and shipped to China by way of Sydney or San Francisco. Some of it goes direct to San Francisco, where it is either transhipped to China or consumed by the Chinese population of our Pacific coast.

At one time the profit upon fungus was something enormous, as it could be bought from the collectors at little more than 1 cent per pound, and sold in San Francisco at 15 cents per pound, and about 23 cents in Hong-Kong; the prices, however, were fluctuating. Now that its market value has become better known, it is difficult to purchase it here even in small lots from the collectors for less than 8 to 10 cents per pound. It loses rapidly in weight by shrinkage.

In 1873 the Government of New Zealand caused an inquiry to be made as to the purpose for which fungus is used in China, and some correspondence was had between the colonial secretary of New Zealand and the colonial secretary of Hong-Kong. The latter stated in one of his communications that the article was much prized by the Chinese community

as a medicine administered in the shape of a decoction to purify the blood, and was also used on fast-days with a mixture of vermicelli and bean curd instead of animal food. It is also said to be used in China and Japan for making a valuable dye for silks.

Since this correspondence it has been discovered that it is used by the Chinese principally as an article of food. It forms the chief ingredient of their favorite soup, for which dish it is much prized on account its gelatinous properties and its rich and delicious flavor.

I send by this mail a small package of New Zealand fungus for the Department of State. It appears to me to have a pleasant and slightly pungent taste. The samples were kindly sent me by H. B. Morton, of this city, for examination and experiment.

Prof. F. F. Cheeseman, the curator of the Auckland Museum, is of the opinion that the fragment of wood attached to one of the specimens is from a tree known to the Maoris as wha-whau-paku, or to botanists as *Panax arboreum*. The other specimens were doubtless found on the karaka tree (*Corynocarpus laevigatus*).

Fungus is often found on the mahoe (*Melicotus ramiflorus*), kowhai (*Sophora tetraptera*), kaiwhiria (*Hedycarya dentata*), pukapuka (*Brachyglottis repanda*), and the *Panax arboreum*, already mentioned, as well as on several other soft-wooded trees. It is rarely ever found on healthy and vigorous trees, but on those that are decaying or almost dead.

A few days ago I made soup of some of the samples, but did not partake of it in sufficient quantities to be able to judge of its excellence as an article of food for civilized people; but one of my Chinese neighbors, who happened to be passing my door while the soup was boiling, caught the aroma of it, and very kindly relieved me of any farther trouble in trying to cultivate a taste for one of his favorite national dishes.

G. W. GRIFFIN, Consul.

UNITED STATES CONSULATE,

Auckland, N. Z., April 26, 1881.

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## CONTINENT OF EUROPE.

### THE FOREIGN COMMERCE OF AUSTRIA-HUNGARY DURING THE YEAR 1880.

REPORT BY MR. DELAPLAINE, SECRETARY OF LEGATION AT VIENNA.

The year 1880 closed with a balance of trade in favor of Austria-Hungary, less, however, than that of the previous year. The imports amounted to 605,805,373 florins, the exports to 689,999,293 florins; accordingly the latter exceeded the former by 84,193,920 florins. In the year 1879 the imports were 556,574,095 florins, the exports 684,447,503 florins; the excess of the latter being 127,873,408 florins. A comparison of the results of the two years shows an increase in round numbers of 49,200,000 in the imports of 1880, and of 55,000,000 only in the exports, being a difference in exports of 43,700,000.

This diminution may, however, be almost exclusively ascribed to the less favorable harvest of 1879, in consequence of which the necessary import of cereals advanced by the amount of 14,000,000 and the exports were less by 31,000,000.

The total is represented as follows:

	Imports.	Exports.	Over Imports.	Over Exports.
Products of agriculture.....	103, 247, 000	283, 423, 000	-----	180, 181, 000
Objects of taxed consumption .....	87, 000, 000	12, 000, 000	75, 000, 000	-----
Materials for manufacture.....	181, 723, 000	120, 320, 000	61, 403, 000	-----
Partly finished articles .....	62, 633, 000	23, 320, 000	39, 313, 000	-----
Manufactured articles .....	153, 908, 000	222, 689, 000	-----	68, 781, 000
Miscellaneous .....	17, 298, 000	28, 342, 000	-----	10, 953, 000
Total .....	605, 814, 000	689, 999, 000	-----	84, 194, 000

For the exhibit it appears that Austria-Hungary holds a prominent position as a manufacturing country. The export of manufactured articles is but slightly under that of the products of agriculture, although the import is considerable, especially of materials and partly-finished articles.

The traffic in manufactured articles and in partly-finished articles exhibits a decidedly favorable development, as shown in the following statement:

IMPORTS.

Articles.	1878.	1879.	1880.
	<i>Metercentner.</i>	<i>Metercentner.</i>	<i>Metercentner.</i>
Cotton yarns .....	147, 794	111, 500	115, 341
Linen yarns.....	18, 915	35, 931	85, 223
Woolen yarns .....	35, 646	38, 591	96, 213
Cotton goods.....	10, 251	10, 366	12, 943
Linen goods .....	212, 954	173, 519	66, 763
Woolen goods .....	37, 358	31, 370	83, 014
Silk .....	4, 432	3, 154	3, 514
Clothing .....	2, 209	1, 798	2, 253
Paper .....	53, 278	59, 972	60, 600
Paper ware .....	5, 438	5, 646	5, 275
Leather .....	96, 292	86, 941	73, 633
Leather ware .....	2, 994	3, 186	3, 326
Wooden ware .....	63, 814	129, 383	157, 900
Glass ware .....	79, 216	41, 482	44, 063
Stone ware.....	36, 479	92, 016	102, 068
Clay ware.....	295, 692	314, 733	482, 245
Iron ware ... ..	87, 389	70, 480	98, 780
Metallic ware .....	6, 897	7, 909	8, 694
Instruments.....	2, 624	2, 482	2, 554
Machines .....	194, 537	210, 576	257, 290
Hardware .....	2, 196	2, 252	2, 462
Matches.....	5, 939	6, 577	9, 290

EXPORTS.

Cotton yarns .....	6, 326	4, 768	6, 136
Linen yarns.....	85, 100	100, 162	73, 612
Woolen yarns .....	13, 272	15, 081	12, 886
Cotton goods.....	30, 969	26, 671	28, 876
Linen goods.....	52, 299	62, 983	50, 983
Woolen goods .....	43, 587	49, 266	43, 033
Silk .....	1, 481	1, 423	1, 518
Clothing .....	15, 803	13, 523	13, 234
Paper .....	175, 652	184, 176	225, 539
Paper ware .....	17, 637	13, 136	6, 990
Leather .....	13, 784	11, 401	10, 289
Leather ware .....	20, 960	15, 970	17, 590
Wooden ware .....	269, 019	308, 910	347, 031
Glass ware .....	273, 126	266, 914	309, 404
Stone ware.....	9, 026	59, 083	116, 201
Clay ware.....	274, 362	434, 547	366, 770
Iron ware .....	186, 910	188, 041	200, 589
Metallic ware .....	12, 372	14, 944	14, 069
Instruments.....	3, 334	3, 325	4, 127
Machines .....	81, 508	84, 826	117, 150
Hardware .....	35, 029	32, 258	29, 026
Matches.....	49, 752	55, 124	49, 990

It appears from the above that the import in most manufactured articles when compared with that of the two preceding years has increased. A diminution is exhibited in linen goods, also slightly in paper ware. In leather a marked decrease is moreover noticeable.

The export of woven goods is less, as well as of some others, but only to an inconsiderable extent, while that of wooden, glass, and iron ware, also of machines, indicates a large augmentation.

The export of paper has greatly advanced.

The following statement exhibits the commercial movement according to the tariff classes :

[In millions of florins.]

Articles.	Value of imports.		Value of exports.	
	1879.	1880.	1879.	1880.
Colonial wares and Southern fruit.....	25.5	38.3	57.6	62.3
Tobacco and manufactured tobacco.....	21.9	27.6	8.3	8.5
Garden and field fruit.....	63.2	83.4	182.8	130.2
Animal, and animal products not included in other divisions.	57.6	49.4	72.3	75.2
Fat and oil made therefrom.....	14.3	15.1	10.7	13.9
Beverages and eatables.....	4.4	4.6	16.8	24.1
Material for burning, building, and working.....	23.8	26.6	61.9	76.1
Medical, perfumery, dyeing and tanning, gums and resin....	28.4	26.2	7.2	8.9
Weaving materials and yarns.....	139.1	145.0	42.6	47.5
Woven articles, clothing and millinery.....	51.5	57.6	58.4	53.9
Articles made from bristles, bast, rush, cocoanut-fiber, grass, sedge, reed, straw, also of paper and pasteboard.....	6.5	7.3	10.1	10.4
Coatschnuck, and gutta percha, wax-cloth, leather, also leather and fur ware.....	31.6	28.1	16.3	18.5
Wood, bone, glass, stone, and clay ware.....	14.3	17.8	36.3	44.9
Metals and metallic ware (excepting the precious metals and coins of same).....	17.6	19.9	24.7	29.5
Vehicles for land and water.....	0.2	0.2	6.1	7.5
Instrumenta, machines and hardware.....	25.0	25.2	44.5	48.8
Salt, chemicals, drugs, dyes, fatty substances, and matches..	12.4	14.4	15.2	15.0
Literary and art objects.....	16.3	16.1	8.4	9.1
Waste materials.....	2.9	3.0	4.2	5.6
Total .....	556.5	605.8	684.4	689.9

The traffic in the precious metals and in coins exhibits, when compared with that of the previous year, some variations. The quantity imported was as follows (in kilograms): Gold bars, 171; silver bars, 59,663; broken silver, 399; gold coin, 15,692; silver coin, 25,914. Exported (kilograms): Gold bars, 198; silver bars, 13,034; broken silver, 5,283; gold coin, 2,223; silver coin, 187,149.

Compared with the year 1879 the importation is less, in gold bars, by 542; in silver bars, by 370,781; and in silver coin, by 43,880 kilograms.

On the other hand, the import has increased, in broken silver, by 370; and in gold coin, by 674 kilograms.

The export has throughout been augmented, the increase being, in gold (kilograms), 126; silver bars, 1,917; broken silver, 4,773; gold coin, 109; silver coin, 134,109.

In respect to the import of silver bars, it may be stated that of the whole import of 59,663 kilograms, 36,616 kilograms are comprised in that of the two last months.

The traffic in the precious metals and in coin is represented, with respect to value, in the following statement:

[Florins, Austrian currency.]

Description.	Import.		Export.	
	1880.	1879.	1880.	1879.
Gold bars .....	153, 600	855, 600	87, 100	93, 600
Broken gold .....	17, 200	.....	78, 600	.....
Gold coins .....	21, 184, 200	20, 274, 800	3, 112, 200	2, 959, 600
Silver bars .....	5, 011, 692	36, 123, 696	1, 094, 856	933, 828
Broken silver .....	9, 975	725	211, 820	20, 400
Silver coins .....	1, 943, 550	5, 234, 550	14, 036, 175	3, 978, 000
Total .....	28, 320, 217	62, 488, 871	18, 620, 251	7, 985, 428

In gold coin the import as well as the export has slightly increased; on the other hand the import in silver bars has diminished by 31,000,000 florins in round numbers, but the export in silver coins has increased by 10,000,000 florins. Altogether the import in precious metals and coins has decreased by 34,168,654 florins, while the export increased by 10,634,823 florins.

In customs duties and fees 7,684,555 florins have been collected in gold, 22,247,732 florins in silver, 164,559 florins in bank-notes; total 30,096,846 florins. In the year 1879 were collected in gold 8,554,100 florins, in silver 15,062,409 florins, in bank-notes 438,663 florins; total 24,055,172 florins. After allowance of the loss in coin-value accruing to the bank-notes, the sum of these increased collections in 1880 is reduced to 5,893,850 florins.

J. F. DELAPLAINE,  
*Secretary of Legation.*

UNITED STATES LEGATION,  
*Vienna, May 18, 1881.*

THE FOREIGN COMMERCE OF AUSTRIA-HUNGARY DURING THE  
FIRST QUARTER OF 1881.

REPORT BY MR. DELAPLAINE, SECRETARY OF LEGATION AT VIENNA.

The statement now published relative to the foreign commerce of the empire in the first quarter of 1881 includes, for the first time, also the results of the import and export of the occupied provinces Bosnia and Herzegovina, which were only in the beginning of 1880 admitted into the Austro-Hungarian customs district. The receipts from these provinces appear inconsiderable and prove a comparatively insignificant amount of traffic on their frontiers.

The customs duties and fees collected during the first quarters of 1880 and 1881 were as follows :

Years.	Austria.	Hungary.	Bosnia, &c.	Total.
1880.....	6, 510, 000	487, 000	20, 000	7, 017, 000
1881.....	7, 026, 000	730, 000	24, 000	7, 780, 000
Increase .....	516, 000	243, 000	4, 000	763, 000

The large increase in customs receipts in Austria is explained by the augmented importations of coffee, being 87,585 metercentners, or 23,084 more; further, of mineral oils, 326,031 metercentners, being 54,925 more.

The important advance in the customs receipts of Hungary is ascribed chiefly to the increased importation of swine, especially from Servia, the number being 93,855 against 23,233 in the first quarter of 1880. With regard to the value of the foreign trade, the same, when compared with the first quarter of the previous year, appears as follows:

Years.	Import.	Export.	Total.
1880 .....	138,800,000	144,900,000	283,700,000
1881 .....	147,600,000	160,000,000	313,600,000

Accordingly an advance in imports by about 8,800,000 florins, or 6.3 per cent.; of exports by 21,100,000, or 14.5 per cent., and of the whole trade by 29,900,000, or 10.5 per cent., is hereby exhibited.

The increased imports consisted mainly in materials required for manufactures, while the increased exports were especially in products of agriculture and of cattle breeding.

The commerce in precious metals shows in the first quarter of 1881 large differences in comparison with the corresponding period of the previous year. In raw silver were imported 15,061 kilograms (being an increase of 12,781 kilograms), and in silver coins 22,432 kilograms (being an increase of 16,422 kilograms), while in gold coins were imported 1,845 kilograms (being a diminution of 2,047 kilograms). The export was inconsiderable, that of silver bars being only 1,168 kilograms, a diminution of 1,324 kilograms.

In value the commerce in the precious metals is represented as follows:

Years.	Imports.		Exports.	
	Gold.	Silver.	Gold.	Silver.
1880 .....	5,241,000	646,000	371,000	402,000
1881 .....	2,553,000	2,948,000	436,000	172,000
Difference .....	-2,688,000	+2,302,000	+ 65,000	- 230,000

The imports exceeded in value the exports in the first quarter of 1880 by 5,114,000 florins, and in the corresponding period of 1881 by 4,893,000 florins.

J. F. DELAPLAINE,  
*Secretary of Legation.*

UNITED STATES LEGATION,  
*Vienna, June 10, 1881.*

**PRODUCTION OF BESSEMER AND MARTIN STEEL IN AUSTRIA-HUNGARY.**

*REPORT BY CONSUL-GENERAL WEAVER, OF VIENNA.*

The following statistics concerning the production of Bessemer and Martin steel ingots in the Empire of Austria-Hungary have just been published, which may be of interest to the American trade.

The first Bessemer steel works in Austria-Hungary were erected in 1862, in the province of Styria, and in 1880, as may be seen from the following table, there were eleven works in operation, producing annually over 100,000 tons of Bessemer ingots.

The production of Martin steel dates from 1870, with two works, which in 1880 increased to seven, with an annual aggregate production of about 30,000 tons.

The following tables give the production of Bessemer steel ingots for 1880 compared with 1879 and 1878, given in metrical centners of 100 kilograms:

Names of works.	1880.	1879.	1878.
Turrach, Styria .....	6, 516	9, 775	7, 983
Heft, Carinthia .....	114, 452	117, 151	127, 203
Neuberg, Styria .....	60, 200	36, 849	44, 028
Witkowitz, Moravia .....	155, 482	163, 603	161, 475
Ternitz, Lower Austria .....	40, 465	48, 054	140, 994
Zeltweg, Styria .....	165, 705	99, 202	103, 260
Teplitz, Bohemia .....	146, 160	103, 110	122, 499
Trzynitz, Silesia .....	77, 100	70, 493	85, 521
Kladno, Bohemia .....	62, 877	81, 735	86, 488
Prävali, Carinthia .....	56, 110	25, 090	56, 913
Reschitza, Hungary .....	128, 540	108, 570	100, 540
Totals .....	1, 013, 697	863, 652	1, 085, 904

The production of Martin steel ingots for 1880 compared with 1879 and 1878 was as follows, given in metrical centners of 100 kilograms:

Names of works.	1880.	1879.	1878.
Gratz, Styria .....	118, 390	130, 597	128, 208
Neuberg, Styria .....	37, 600	30, 897	25, 968
Reschitza, Hungary .....	71, 970	88, 050	60, 160
Anina, Hungary .....	.....	53, 840	44, 280
Donawitz, Styria .....	18, 740	17, 067	270
Witkowitz, Moravia .....	29, 681	19, 137	.....
Brezova, Hungary .....	.....	12, 635	.....
Totals .....	276, 381	352, 223	258, 886

The total production of Bessemer and Martin steel in Austria-Hungary since 1864 and 1870, respectively, up to 1880, was as follows, the quantities given in metrical centners of 100 kilograms:

Period.	Martin steel.	Bessemer steel.
1864 .....	.....	3, 057
1865 .....	.....	35, 454
1866 .....	.....	79, 216
1867 .....	.....	87, 568
1868 .....	.....	144, 799
1869 .....	.....	207, 173
1870 .....	2, 986	290, 769
1871 .....	51, 197	497, 249
1872 .....	97, 451	554, 448
1873 .....	37, 823	766, 111
1874 .....	34, 227	853, 397
1875 .....	34, 813	992, 508
1876 .....	45, 049	936, 684
1877 .....	134, 683	1, 041, 191
1878 .....	258, 886	1, 035, 954
1879 .....	352, 223	863, 692
1880 .....	276, 381	1, 013, 677
Totals .....	1, 325, 719	9, 402, 877

From the foregoing table it will be seen that the production in 1880 surpassed that of any former year, although the Martin steel fell off 75,842 metrical centners when compared with 1879.

The indications are that from the demand for steel rails for the new railroads in process of construction the demand for the present year will be unusually brisk, and the production will, therefore, be correspondingly great.

JAMES RILEY WEAVER,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Vienna, June 8, 1881.*

### THE WAR AGAINST AMERICAN PORK.

REPORT BY CONSUL STEUART, OF ANTWERP, BELGIUM.

In the unjust war now being waged in Europe against American pork, under the thin pretense of protecting the sanitary condition of the people, Belgium has maintained an honorable and consistent position, positively refusing to prohibit importation or to advise or adopt any measure calculated to injure the large business done here in that article.

As Antwerp is one of the largest markets for the salted meat exported from America, every action of this government is of importance and interest. I have, therefore, pleasure in handing herewith a translation of a circular letter recently issued by the minister of the interior to the governors of the different provinces, and also a report of the superior council of public health, both relating to the present agitation of the trichina question, and as they are liberal, sensible, and strongly in contrast to the hasty action taken by other governments, I have thought best to hand them to you for your consideration and use.

JOHN H. STEUART, *Consul.*

UNITED STATES CONSULATE, *Antwerp, May 6, 1881.*

*Translation of the circular from the minister of the interior to the governors of the province of Belgium concerning trichina.*

BRUSSELS, *April 28, 1881.*

The attention of the government has lately been called in a special manner to the danger threatening the public health from the consumption of pork meat imported from America and suspected to contain trichina.

No case of trichina has yet been reported as having been discovered in our country, but it is claimed that the American salted provisions, which so abundantly reach our markets, are often infected with trichina. Some persons consider it a necessity to warn the country against the dangers which may arise from this state of things with measures similar to those taken by other countries, and particularly by France. In fact, the President of the French Republic, by decree of 18th of February last, prohibited the importation into any port of France of pork meat coming from the United States of America.

Would the prohibition of American meat into Belgium, which would be a radical measure and one of very serious importance, be sufficiently justified by the actual circumstances?

Could it be possible to organize, at least at the landing ports and in the principal centers of population, a special service of microscopic inspection sufficient to guarantee to every one the harmlessness of the imported meat?

Interrogated by the House of Representatives and by the Senate at the time of the discussion of the budget of the department of the interior, I thought I could answer both questions negatively. The reasons which decide me not to take the prohibitory or controlling measures are perfectly set forth in the report of the superior council of public health which follows this circular—a report the conclusions of which I have fully adopted.

To recommend to the people to consume the pork meat only after a sufficient cooking is the only practical manner in which the administrative authorities ought to answer the fears which are manifested, and to satisfy, in a just and reasonable measure, the mission of supervision which they have to exercise over the public health.

The search which has been pursued since the first discovery of trichina affecting persons has shown, says the superior council of public health, that this parasite disease is unknown in the countries like Belgium, where pork meat is submitted to complete cooking.

On the other part, numerous experiments have proved that trichina do not even resist the temperature of 56° Ct., and that they are infallibly killed in the meat of which the cooking has attained from 75° to 100° Ct. It is, then, important to make known, that the pork meat well cooked, although trichina may be present, is completely harmless, and consequently "those only have the disease who wish to have it," by not following the cooking customs of the country, and if they have been put aside, to return to them and observe them more and more scrupulously. Then, giving a practical form to these conclusions, the superior council of public health ends its report by the following recommendations:

1. The duration of the boiling of pork meat, previously cut, must be prolonged for a calculated time, say of one hour per kilogram, considering also that the addition of a small quantity of vinegar to the cooking water renders it more promptly efficient.

2. The action of fire upon the meat, grilled or roasted, should be continued until from the thickest part of the piece there does not flow any pink juice.

3. There shall not be used any raw meat in any preparations where it does not undergo the above-mentioned degree of heat in cooking. These simple and easy precautions are dictated by the experience and recommended by the most competent men. I therefore beg you, Mr. Governor, to have them inserted in the administrative memorial, so that the communal administrations may make them known to all the inhabitants, and that they should have the largest possible publicity.

The minister of the interior:

G. ROLIN JACQUEMYS.

*Translation of the report of the superior council of public health upon trichina.*

ANTWERP, May 6.

GENTLEMEN: For some time past public attention has been directed to the danger to which the public health is exposed by the importation into Europe of large cargoes of pork meats coming from the United States of America, which are more or less suspected of trichinous infection.

Last November the meat inspector of Lyons discovered a great number of trichina in leaf lard coming from New York. On fifty samples, three were infected.

This fact having been published, and Dr. Laboulbène having reported to the Academy of Medicine of Paris, in its meeting of February 15, last, that a small epidemic from trichina had prevailed a few years ago at Crepy en Valois, caused, strange to say, by native pork, a regular panic was produced in France, to which the government thought proper to apply a prompt and radical remedy; and by decree of the 18th of the same month the President of the French Republic prohibited on all the territory of the country the importation of all salted pork meat coming from the United States of America.

This grave measure, taken from the unanimous advice of the consulting committee of health of France, produced a deep and very legitimate excitement, as much for the political economy as for the public health.

This excitement was deeply felt in Belgium, and the attention of the government was called to it by Mr. Willequet, member of the House of Representatives, in the sitting of the 22d of February. Answering the interrogatory of the honorable member, the minister of the interior stated that during the fifteen or twenty years that this question has been raised the government has never ceased to consider it.

In 1865 Mr. Gluge, one of the members of the Royal Academy of Medicine, called attention to this matter on the occasion of the discovery of some trichina epidemics in Germany, and demanded information upon the means to be taken to prevent its invasion into Belgium, and also requested the academy to spread abroad, for that purpose, instructions destined to warn consumers. The superior council of health was also consulted, and at that time, as in 1873, considering that no case of trichina had as yet been discovered in this country, they formally declined to advise the prohibition of the importation of foreign pork meat.

The situation having remained the same, the minister has expressed the opinion that it was not necessary to have recourse to such a measure; that besides it was perfectly established that trichinated meat does not present any danger when sufficiently cooked and that this fact was well ascertained and made popular by numerous publications.

The government shall continue, he said, to keep posted as to the sanitary condition in this matter; he shall have the imported meats examined as often as possible, and shall soon again recommend the precautions to be taken for the consumption of these meats.

For this purpose the minister of the interior, per dispatch dated March 5, has recalled the attention of the superior council of health to the documents relating to

the trichina, which he had already submitted, and invited them to submit the question for examination.

The documents emanating from the medical commission of the province of Antwerp, from Mr. Vele, veterinary surgeon of the government in that city, &c., have chiefly for their object the preventive measures which could be made useful in the occurrence, in the interest of the public health. The commission which has been charged with the new study of the question has studied it thoroughly, and has confided to us the care to give account of its deliberations.

It seemed important first to restrain the danger to its just proportions, and to ascertain if the danger is really worthy of the excitement which it had caused; and from the examination made it results that it is, to say the least, very much exaggerated. In fact, in the large quantities of suspected meat imported since a long time from America and other countries into Belgium no case of trichina has ever been known.

The parasitism which constitutes the element of this disease seems not to have produced itself in a manner to be reached, which can be explained on the one part by the custom of submitting the meat to complete cooking, and on the other by the fact that the salting as it is practiced for export kills the trichina, and therefore renders it entirely harmless. This is proved from numerous experiments by Messrs. Kirchenmeister, Haubner, Leisering, Colon (of the school of Alfort), and more particularly by those, very conclusive, with which this last has recently entertained the Academy of Medicine of Paris.

In the American salt provisions the trichinas are, then, generally dead, at least in the superficial coating, but in the deeper parts, of the hams for instance, they may have escaped the action of the salt.

As the danger exists by reason of this well-known fact, it is proper to advise and warn the people against these more or less serious consequences.

Three means have been put in practice or recommended to that effect:

1. Prohibiting the importation of pork meats from America.
2. The inspection of these meats in the ports of arrival and in the large centers of population, such as the city of Antwerp, where this article of food occupies such an important place in its commercial transactions.

3. An instruction to spread amongst the people so as to advise them of the necessity to submit to complete cooking pork meat of every kind.

I. The prohibition of salted pork meat coming from America is not to be recommended. Such a measure would greatly injure the trade, and would be prejudicial to the interests of the working class, who would find themselves obliged to dispense with an article of food which they now obtain at low prices.

On the other hand, it would be illusory as to the public health. It would imply that the danger of trichina infection existed exclusively in foreign pork meat, and that the native pork might be eaten raw with impunity. Then if (which is not known and seems doubtful) the native pork was formerly free from trichina infection, is it still so? Is there no reason to believe that it may be more or less infected with the said intestinal worms by the importation of meat infected with trichina, say by the wastes of bacon and hams which contain them, or by the digestions of persons who have consumed the meat, and who by reason of the small quantity of trichina existing, or by the destruction of the greater part by cooking, have not been seriously affected? The affirmative, demonstrated for France by the case of the pork which caused the small epidemic in Croy le Vellois, seems equally probable for Belgium. Besides, the prohibition could become injurious to the health as well as to commerce. This measure, so hurtful to commercial transactions, and that could even injure the public health, is, then, not to be advised.

II. And now comes the question if there should not be organized an inspection of the said meats at the ports of arrivals. At first sight the thing seems desirable: but outside of the impossibility to procure the number of special inspectors well accustomed to the use of the microscope, which this organization would need, there could still result a dangerous illusion. It would not be possible, however numerous and skillful these inspectors might be, to submit to a complete examination all the pieces contained in the large boxes which would be presented to them, nor even a small number of these pieces, and then, among the meat which could not be examined, or imperfectly examined, there might be some pieces infected. Again, the inspection which would be made without finding the worms would seem to be a guarantee for the consumers, who would then, in all confidence, use the meat sold under the official stamp and could be thus all the more exposed to the trichinosis infection.

This service of inspection would be of no utility, and could even be harmful: therefore it is not to be recommended. As to the rest, the medical commissions which occupy themselves with all that interests the public health could be invited to bring their attention upon the possible growth of trichina.

We shall not insist any longer on the useless measures which we have just examined.

III. As to the instruction to be spread among the people to enlighten and warn them as to the precautions to be taken against the danger of trichinosis infection we attach great importance. The investigation which has been pursued since the first

of trichina affecting persons has shown that this parasite disease is unknown in countries like Belgium, where pork meat is submitted to complete cooking.

On the other part, numerous experiments have proved that trichinae do not even resist the temperature of 56° Cent., and that they are infallibly killed in the meat of which the cooking has attained from 75° to 100° Cent. It is, then, important to make it known that the pork meat well cooked, although trichina may be present in it, is completely harmless, and consequently "*those only have the disease who wish to have it,*" and that to prevent it, it is sufficient to follow the cooking customs of the country, or, if they have been put aside, to return to them and be more and more scrupulous in their observance.

We are, then, brought to the following conclusions:

1st. That the prohibition of foreign pork meat is not to be advised, this measure being of a nature not only to damage commerce without producing any kind of advantage, but also to work an injury, by inspiring the people with a too absolute confidence in favor of the pork meat native to the country, and would make them deprive themselves of a desirable article of food by reason of the high prices which would result from the prohibition of the importation of foreign meats.

2d. That the organization of a service of inspection of these meats, let it be at the landing ports or in their own country, at the pork packer's, notwithstanding the insuperable difficulties which would arise, would be of a nature to place the consumers in a false security, and to expose them thereby to a danger from which they ought to be guaranteed.

3d. To attain this, and it is sufficient to make it generally known by all possible means that pork meat eaten raw or not completely cooked may cause a disease serious and even fatal, and that it is important to observe carefully and attend to this simple precaution.

a. The duration of the boiling of pork meat, previously cut, ought to be prolonged for a calculated time, say of one hour per kilogram, considering also that the addition of a small quantity of vinegar to the cooking water renders it more promptly efficient.

b. The action of the fire upon the meat roasted or grilled should be continued until from the thickest part of the piece there does not flow any pink juice.

c. There shall not be used raw meat in any culinary preparations where it does not undergo the above-mentioned degree of heat in cooking.

In strictly observing these precautions, they may be sure to continue to enjoy perfect freedom from any danger from trichina.

The members of the commission.

LEROCQ,  
VERGOTE,  
JOURET,  
VLEMINCKX.

THIERNESSE, *Reporter.*

## THE NEW FRENCH TARIFF.

[Translated from the "Journal Officiel de la République Française," in the Department of State, and compared with the old "Tarif Général."]

This tariff was promulgated May 8 last (1881), and seems to supersede all Conventional Tariffs, including the eight Special Tariff treaties with Great Britain, *after six months' notice*. This tariff became a law on May 7, and was published in the "Official Journal" on May 8; consequently it must have been hurriedly printed, which a few imperfections in the Journal received indicate. The Department therefore presents the following as a literal translation.

The new tariff varies so much in the specifications and classification of some articles that it was impossible, in giving a parallel comparison of the old tariff, to designate (in column of old tariff) the exact rate per each item. The best that could be done, therefore, under the circumstances was to indicate the change by giving the minimum and maximum rates in such instances.—NOTE BY DEPARTMENT.

### LAW REGARDING THE ESTABLISHMENT OF THE GENERAL CUSTOM-HOUSE TARIFF.

Adopted by the Senate and Chamber of Deputies, and promulgated by the President of the Republic, as follows:

ARTICLE 1. The general tariff relative to imports and exports is established in conformity with Tables A and B, annexed to this present law.

All infractions of the ruling which prohibits the transportation of thoroughbred dogs beyond the land frontier will cause the application of the penalties provided in the law of April 28, 1816, for the prevention of contraband importation of prohibited merchandise.

ART. 2. Products of extra European sources, imported from any European country, shall be subject to the discriminating duty specified in Table C, hereto annexed.

Foreign sugars shall remain liable to the discriminating duties established by the law of July 19, 1880.

European products imported from other countries than that of their origin shall be subject to the discriminating duties as set forth in Table D, hereto annexed.

ART. 3. The rights and privileges applicable to the products of the French colonies and possessions are determined in conformity with Table E, hereto annexed.

With regard to those colonies not classified by Senate decree of May 3, 1854, and completed by the Senate decree of July 4, 1866, the customs tariff shall be established by a decree of the government, to be approved by the council of state.

ART. 4. Article 19 of the law of July 27, 1822, is hereby amended and completed as follows:

The two merchants or manufacturers acting with the expert commissioners in customs-house business shall henceforth be appointed, one by the customs-house and the other by the party declaring, and shall be chosen from a list prepared every year for this purpose by the Chamber of Commerce of Paris. In case one of these parties refuse to designate his arbitrator, such designation shall be made, from the same list, on the demand of the other party, by the justice of peace of the canton wherein the bureau of imports is located. Should both experts agree, their decision shall be final, and shall be registered by the legal committee of experts. But should a difference arise, the committee of experts shall act as arbitrator, and render final decision in conformity with the regulations provided in article 19 of the law of July 28, 1822.

This same procedure shall be followed for the expert appraisements on merchandise subject to *ad valorem* duty. When the values stated by the expert appraisers are in excess of those declared, the penalties provided in article 21, Chapter II, of the law of August 22, 1791, for the prevention of false declarations as to qualities, shall be applied.

ART. 5. The forms for declarations to be presented at the custom-house shall be decided by decrees.

This present law, being duly debated and adopted by the Senate and Chamber of Deputies, shall go into effect as law of the state.

Done at Paris this 7th day of May, 1881.

JULES GREVY,  
*President of the Republic.*

P. TIRARD,  
*Minister of Agriculture and Commerce.*

TARIFF.

TABLE A.

[Duties in francs and centimes.]

No.	Articles.	New tariff.	Old tariff.
ANIMAL MATTERS.			
Live animals.			
		Each.	Each.
1 {	Horses, stallions, mares, full grown ....per head.	30. 00	30. 00
1 {	Horses, colts, or fillies.....do....	18. 00	18. 00
2	Mules.....do....	5. 00	18. 00
3	Asses.....do....	Exempt.	Exempt.
4	Oxen.....do....	15. 00	3. 60
5	Cows.....do....	8. 00	1. 20
6	Bulls.....do....	8. 00	3. 60
7	Young cattle.....do....	5. 00	1. 20
8	Calves.....do....	1. 50	0. 30
9	Sheep.....do....	2. 00	0. 30
10	Lambs.....do....	0. 50	0. 12
11	Goats and kids.....do....	0. 50	Exempt.
12	Pigs.....do....	3. 00	0. 30
13	Sucking pigs.....do....	0. 50	0. 12
14	Game, poultry, turtles.....per 1,000 kilos.	20. 00	Exempt.
15	Animals not specified.....do....	Exempt.	Exempt.

TABLE A—Continued.

No	Articles.	New tariff.	Old tariff.
<b>ANIMAL MATTERS—Continued.</b>			
<i>Animal products.</i>		<i>Per 100 kilos.</i>	<i>Per 100 kilos.</i>
16	Meat, fresh, butchers .....	3.00	0.60
16	Meat, game, poultry, and turtle .....	20.00	Exempt.
17	Meats, salted .....	4.50	0.60 to 4.00
18	Meats preserved in cans .....	8.00	
19	Meats, extracts of .....	4.00	
20	Hides, raw, green or dry, large or small .....	Exempt.	Exempt; indirect importation, 3.00.
21	Peltries, raw .....	Exempt.	Exempt.
21	Wool, alpaca, lama, vicuna, yack, and camel's hair, in bales .....	Exempt.	Pieces, 3.00.
22	Wool, other kinds of .....	Exempt.	Exempt.
22			Indirect, 3.60; combed, 84.00; dyed, 120.00; short flocks exempt.
23	Hair, horse, prepared or curled .....	Exempt.	Exempt; indirect, 3.60, extra, 3.60.
24	Hair (poils, down, fur, bristles, &c.), raw .....	Exempt.	Exempt.
24	Hair, combed, goat's .....	10.00	Treaty only.
24	Hair, combed, other kinds .....	10.00	12.00
24	Hair in hanks of assorted lengths .....	10.00	12.00
25	Feathers, ornamental, dressed or undressed .....	Exempt.	Exempt.
25	Quills (for writing, &c.), prepared or not .....	Exempt.	Exempt.
25	Feathers, bed, all kinds, including down .....	20.00	50.00
26	Silk in cocoons .....	Exempt.	Exempt.
26	Silk, raw and milled .....	Exempt.	Exempt.
26	Silk, dyed, sewing, embroidery or other .....	Exempt.	Exempt.
26	Silk, flock, combed .....	10.00	10.40
27	Hair, human .....	Exempt.	Exempt.
28	Byssus of <i>pinna marina</i> .....	Exempt.	Exempt.
29	Poile de Messina (silk gut used only for fishing lines.) .....	Exempt.	Exempt.
30	Animal fat, except fish oil .....	Exempt.	Exempt; indirect, 2.00 and 3.00.
31	Waste of fish oil and alkalies from the process of manufacturing chamois leather .....	Exempt.	Exempt.
32	Beeswax, raw, yellow, brown, or white .....	10.00	1.00
32	Beeswax, waste of .....	Exempt.	3.00
33	Eggs, of poultry or game .....	10.00	1.00
33	Eggs, silkworm .....	Exempt.	Exempt.
34	Milk .....	Exempt.	Exempt.
35	Cheese, soft .....	6.00	7.20
35	Cheese, hard .....	8.00	18.00
36	Butter, fresh and melted .....	13.00	Exempt.
36	Butter, salted .....	15.00	2.50
37	Honey .....	10.00	Exempt.
38	Manure .....	Exempt.	Exempt.
39	Bones, calcined, white .....	Exempt.	(Guano) 1.80
40	Bone black .....	Exempt.	3.00
41	Animal sinews, ears, &c. ....	Exempt.	Exempt.
42	Other raw animal products .....	Exempt.	Exempt.
<b>FISH.</b>			
43	Products of French fisheries .....	Exempt.	Exempt.
44	Fish, fresh sea .....	5.00	Exempt.
44	Fish, freshwater .....	5.00	Exempt.
45	Fish, dried, salted, smoked, cod, stock fish, or klipp fish .....	48.00	10.00 to 48.00
45	Fish, others, dried, salted, or smoked .....	10.00	
46	Fish, preserved in oil or pickled .....	10.00	
47	Oysters, fresh <i>Naissaim</i> .....	Exempt.	1.80
47	Oysters, fresh, other .....	1.50	6.00
47	Oysters, pickled .....	10.00	
48	Lobsters, alive or fresh-boiled .....	5.00	Exempt.
48	Lobsters, preserved or prepared .....	10.00	
49	Mussels and other shell fish .....	Exempt.	Exempt.
50	Fish oil .....	6.00	(French fishery) 0.18.
50			(Other) 9.00
51	Spermaceti .....	5.00	24.00
51	Spermaceti, pressed .....	10.00	20.00
51	Spermaceti, refined .....	15.00	50.00
52	Parings, cod and mackerel .....	0.60	0.60
53	Whalebone, uncut .....	Exempt.	3.00
54	Seal skin, dog-fish skin, raw .....	Exempt.	Exempt.

TABLE A—Continued.

No.	Articles	New tariff	Old tariff.
<b>FISH—Continued.</b>			
		<i>Per 100 kilos.</i>	<i>Per 100 kilos.</i>
55	Coral, rough, uncut .....	Exempt.	Exempt.
56	Pearls, fine (natural) .....	Exempt.	Exempt.
57	Fish-sound, raw or simply dried .....	Exempt.	Exempt.
<b>RAW MATERIALS OF MEDICINES.</b>			
58	Sponges, raw .....	35.00	50.00
59	Sponges, prepared, fine .....	65.00	55.00
60	Other raw animal products for medicine or perfumery.	Exempt.	Exempt.
<b>HARD SUBSTANCE FOR CARVING.</b>			
61	Elephants' teeth and tusks .....	Exempt.	3.60
62	Turtle shell, carapaces (upper buckler), ongions and caouanes.	Exempt.	0.00
63	Ivory and shell, imitation .....	75.00	
64	Nacreous shells, mother-of-pearl, rough .....	Exempt.	4.80
65	Haliotis, ear shell, and others for working .....	Exempt.	3.00
65	Bones and hoofs of cattle, raw .....	Exempt.	3.00
66	Horns of cattle, raw .....	Exempt.	3.00
66	Horns prepared and in sheets .....	3.00	3.00
<b>VEGETABLE SUBSTANCES.</b>			
<b>Cereals:</b>			
67	Wheat spelt and météil (wheat and rye) in the grain.	0.60	0.60
68	Wheat, and wheat and rye meal .....	1.20	1.20
68	Rye, maize, barley, buckwheat, oats, grain, or meal.	Exempt.	Exempt.
69	Bread and ships' biscuit .....	1.20	1.20
70	Gruaux, semoules en (coarse meal) .....	1.20	1.20
71	Semoules in paste (Italian paste) .....	6.00	8.40
72	Sago, salep, and exotic feculas .....	6.00	1.20
73	Rice, in grain, of European produce .....	Exempt.	0.60
73	Rice, in grain, of extra European produce .....	Exempt.	
73	Rice, in the husk, of European produce .....	Exempt.	2.10
73	Rice, in the husk, of extra European produce .....	Exempt.	
74	Rice, cracked .....	Exempt.	
75	Dried vegetables, and powder of .....	Exempt.	Exempt.
76	Chestnut, and chestnut powder .....	Exempt.	Exempt.
77	Millet grain and meal .....	Exempt.	Exempt.
78	Potato .....	Exempt.	Exempt.
<b>FRUITS AND SEEDS.</b>			
<b>Fresh fruit:</b>			
79	Lemons, oranges, and their varieties .....	4.50	2.00 to 12.00
79	Carob beans .....	0.30	0.30
79	Others .....	Exempt.	Exempt.
<b>Fruit:</b>			
80	Dry figs .....	6.00	0.30
80	Raisins, apples, and pears .....	6.00	to
80	Almonds and nuts .....	6.00	19.20
80	Others .....	8.00	
<b>Fruits:</b>			
81	Preserved in brandy .....	*40.00	
81	Preserved in sugar or honey .....	Rulings of the law of July 19, 1880.	20.40 to 117.60*
82	Otherwise .....	8.00	
82	Distillers' fruit, and green .....	2.00	2.00
83	Oleaginous fruit and seeds .....	Exempt.	Exempt.
84	Seed grain .....	Exempt.	Exempt.
<b>COLONIAL PRODUCE.</b>			
85	Sugar .....	Rulings of the law of July 19, 1880.	63.00 to 70.50
87	Molasses for distilling .....	Exempt.	From French Possessions Exempt.
87	Molasses, not for distilling, sirups, candies, and confectionery.	Rulings of the law of July 19, 1880.	24.45 to 63.00
88	Biscuits, sweet, from French colonies† .....	Rulings of law of July 19, 1880.	31.50 to 34.50
88	Biscuits, sweet, from foreign sources .....	Idem. plus 3.75 per 100 kilos.	12.00 to 15.00
89	Preserves, sugar or honey .....	Rulings of law of July 19, 1880.	31.50 to 34.50
89	Preserves, without sugar or honey .....	8.00	12.00 to 15.00
	Pastes, either sugared or aromatic, designated as such in preceding tariffs, are classed as sugar preserves.		

\* Exclusive of the duty for internal consumption.

† Only those products imported direct are considered as those of the French colonies and possessions.

TABLE A—Continued.

No.	Articles.	New tariff.	Old tariff.
COLONIAL PRODUCE—Continued.		Per 100 kilos.	Per 100 kilos.
90	Coffee berries and nibs .....	156. 00	150. 00 to 170. 00
	Coffee roasted and milled.....	208. 00	
91	Cocoa in beans and nibs .....	104. 00	100. 00 to 120. 00
	Cocoa crushed in paste, tablet, or powder.....	135. 00	
	Chocolate .....	Rulings of the law of July 19, 1880.	
	Cocoa butter .....	135. 00	
92	Pepper and capsicum.....	208. 00	240. 00
93	Cardamoms.....	208. 00	240. 00
94	Cannel .....	208. 00	240. 00
95	Nutmegs in the shells .....	208. 00	240. 00
	Nutmegs out of the shells .....	312. 00	350. 00
96	Mace.....	312. 00	350. 00
97	Cloves.....	208. 00	
98	Vanilla .....	416. 00	403. 00
99	Tea .....	208. 00	260. 00
100	Tobacco in leaf or otherwise for the regie (monopoly).	Exempt.	Prohibited by government monopoly.
	Tobacco on private account .....	Prohibited.	
	Tobacco, manufactured, for the regie.....	Exempt.	
	Manufactured tobacco for the personal use of the importer up to the amount of 10 kilos per year and per consignee, bearing prohibition against offering for sale, and under reserve of the administrations granting permission, and also furnishing security in case of failure to pay the fine for the second import duty—		
	Cigars and cigarettes .....	3, 600. 00	
	Snuff and chewing tobacco .....	1, 500. 00	
	Smoking tobacco from the Levant.....	2, 500. 00	
	Smoking tobacco of all other source .....	1, 500. 00	
	Other manufactured tobacco.....	Prohibited.	
	Tobacco dust (pralss).....	Prohibited.	
VEGETABLE OILS AND JUICES.			
101	Oil, olive, fixed, pure.....	4. 50	6. 00
	Oil, palm, cocoanut, touloucouna, and illipé.....	1. 00	
	Oil, others.....	6. 00	
102	Oils, fixed, aromatic.....	80. 00	
103	Oils, volatile, or essence of rose or rosewood.....	4, 000. 00	4, 800. 00
	Oils of orange, lemon, and their varieties.....	150. 00	480. 00
	Oils, all other .....	100. 00	90. 00
104	Gums .....	Exempt.	Exempt.
105	European resins and other resinous products....	2. 00	1. 00 to 9. 60
106	Essence of turpentine .....	5. 00	
107	Balsams .....	10. 00	
108	Camphor, raw.....	2. 00	Exempt.
	Camphor, refined.....	4. 00	2. 00
109	Caoutchouc and gutta-percha.....	Exempt.	Exempt.
110	Glue (bird lime).....	Exempt.	—
111	Manna .....	8. 00	
112	Aloes .....	6. 00	6. 00 to 12. 00
113	Opium .....	240. 00	240. 00
114	Liquorice juice.....	10. 00	57. 60
115	Sarcocolla, kino, and other dried vegetable juices.	Exempt.	Exempt.
MEDICINAL SUBSTANCES.			
116	Roots, herbs, leaves, flowers, barks, and lichens..	2. 00	3. 00 to 5. 50
117	Fruits and seeds confits in sugar from the French colonies and possessions* and foreign.	Rulings of the law of July 19, 1880.	
	Other fruits, cassia and tamarinds.....	2. 00	Exempt and to 12. 00.
	Other fruits not specified.....	6. 00	
WOOD.			
118	Woods, common: building wood, oak, elm, walnut, with or without bark, sawed or otherwise, and other woods of all dimensions.	Exempt.	Exempt.
119	Wood, masts, materials, spars, handles, and oars.	Exempt.	Exempt. and to 4. 80
120	Wood horns.....	Exempt.	
121	Wood, split, splints.....per 1,000.	0. 10	
122	Wood, hop poles .....	Exempt.	
123	Wood, staff and tremails.....per 1,000.	0. 25	
124	Wood, cork, rough, rasped, and planks.....	Exempt.	
125	Wood, fire, charcoal, and kindling .....	Exempt.	
126	Wood, other common.....	Exempt.	
127	Wood for cabinet work, logs or sawed, more than two decimeters thick, and mahogany, boxwood, and others.	Exempt.	
	Wood, cabinet work, two decimeters thick or under.	1. 00	Exempt.

\* Products of the French colonies and possessions are those imported directly.

TABLE A—Continued.

No.	Articles.	New tariff.	Old tariff.	
	WOOD—Continued.	Per 100 kilos.	Per 100 kilos.	
128	Woods, perfumed .....	Exempt.	3. 00 to 4. 80	
129	Woods, dye, in logs .....	Exempt.		
130	Woods, dye, ground .....	Exempt.		
	FIBERS, STEMS, AND FRUIT FOR MANUFACTURES.			
131	Cotton, raw .....	Exempt.	3. 00 to 123. 00	
	Cotton wadding .....	10. 00		
132	Flax and hemp, raw, braked, tow or harda, or combed.	Exempt.	3. 00	
133	Jute, raw, braked, or combed or twisted .....	Exempt.*	3. 00	
134	Phormium, abaca (manilla hemp) and vegetable fibers not specified, raw, braked, harda, or combed.*	Exempt.	3. 00	
135	Canes and reeds, raw .....	Exempt.	1. 00 to 3. 00	
136	Limetree bark (lindens) for cordage .....	Exempt.	3. 00	
137	Cocoanut shells, empty, calabashes, and hard seeds for carving.	Exempt.	3. 00 to 3. 60	
	DYES AND TANNINS.			
138	Madder, in the root, green, dry, in powder or "en paille" (imperfectly ground.)	Exempt.	Exempt.	
139	Turmeric in the root or powder .....			
140	Quercitron ( <i>Quercus tinctoria</i> ) .....			
141	Lichens, dye .....			
142	Tan-barks, ground or not .....			
143	Sumac and fustic, bark, leaves, twigs, or ground.			
144	Dye-pods, broken or ground .....			
145	Other roots, herbs, leaves, flowers, box-wood, seeds, and fruits for dyeing and tanning.			
	PRODUCTS AND WASTE (VARIOUS.)			
146	Vegetables, green .....	Exempt.	Exempt.	
	Vegetables, salted or preserved .....	3. 00	3. 00	
147	Truffles, fresh, dried, or preserved .....	200. 00	Exempt.	
148	Hops .....	15. 00	54. 00	
149	Absinth .....	3. 00	—	
150	Beet roots .....	Exempt.	Exempt.	
151	Chicory roots, green .....	.25	.25	
	Chicory roots, dry .....	1. 00	1. 00	
152	Fodder .....	Exempt.	Exempt.	
153	Bran of all kinds .....	Exempt.	Exempt.	
154	Oil cake .....	Exempt.	Exempt.	
155	Drills .....	Exempt.	Exempt.	
156	Turf and peat, for burning .....	Exempt.	Exempt.	
157	Products and vegetables not specified .....	Exempt.	Exempt.	
	MINERAL SUBSTANCES.			
158	Marble, white statuary, rough quarried, or simply sawn.	Exempt.	1. 00	
	Marble, other, rough or quarried .....	Exempt.	1. 00	
	Marble, other, sawed, 16 centimeters thick or more.	Exempt.	1. 00	
	Marble, other, sawed, less than 16 centimeters thick.	2. 50	1. 50	
	Marble, other, sculptured, polished, or otherwise worked; statuary.	10. 00	48. 00	
	Marble, polished or otherwise worked, clocks, vases, writing or ink stands.	15. 00	Treaty.	
	Marble, other, sculptured, polished, or otherwise worked.	6. 00		
	Ecosines (calcareous stones or cloudy crystals, also called blue stone, Flanders granite, and Little granite), rough or simply cut.	Exempt.		
	159	Ecosines, sawed, 16 centimeters thick, or over...	Exempt.	Special treaty tariff.
		Ecosines, sawed, less than 16 centimeters thick.	1. 25	
	Ecosines, sculptured, polished, otherwise worked, modern statuary.	10. 00		
	Ecosines, others, sculptured, polished, or otherwise worked.	4. 00	1. 00 to 18 % a. v.	
160	Alabaster, rough quarried or sawed, 16 centimeters thick, or over.	Exempt.		
	Alabaster, sawed, less than 16 centimeters thick.	2. 50		
	Alabaster, sculptured, or otherwise worked, modern statuary.	10. 00		
	Alabaster, sculptured or otherwise worked, others.	6. 00		
161	Stones, gems, rough or cut .....	Exempt.	Exempt.	

\* Fibers are only considered as braked or twisted when they have merely received out of Europe the twisting necessary for transportation.

TABLE A—Continued.

No.	Articles.	New tariff.	Old tariff.
<b>MINERAL SUBSTANCES—Continued.</b>			
162	Agates and other stones of the same species:	<i>Per 100 kilos.</i>	<i>Per 100 kilos.</i>
	Rough .....	Exempt.	Exempt.
163	Worked .....	15.00	and 10 % a. v.
	Rock crystal, rough and worked .....	Exempt.	Exempt.
	Stones, worked, including building stone and slates, shaped and sawed.	Exempt.	
	Stones, sculptured and polished, and lithographic stones, engraved, designed.	Exempt.	
164	Stones, sculptured or polished modern statuary..	10.00	18 % a. v.
	Stones, marbles, toys .....	15.00	
	Stones, sculptured and polished, slates framed or unframed, for writing or drawing.	3.75	
	Stones, others, sculptured and polished .....	3.00	
165	Millstones .....	Exempt.	Exempt.
166	Rocks and clays used in the arts and manufactures.	Exempt.	Exempt.
167	Rough materials and slates for building .....	Exempt.	Exempt.
	Slates for roofing .....	4.00	4.00 to 10.00
168	Bricks and tiles .....	1.00	4.80 to 30.00
	Bricks, fire .....	1.00	4.80
169	Building stone, rough .....	Exempt.	Exempt.
170	Paving stones .....	Exempt.	
171	Lime and plaster .....	Exempt.	Exempt.
172	Materials, other .....	Exempt.	Exempt.
173	Marle .....	Exempt.	Exempt.
174	Sulphur, unrefined, including the minerals and pyrites.	Exempt.	Exempt.
	Sulphur, refined and sublimated .....	Exempt.	Exempt.
175	Coke .....	0.12	0.12
	Coke, ashes of .....	0.12	0.12
176	Graphite, or plumbago .....	Exempt.	Exempt.
177	Coal tar .....	Exempt.	Exempt.
178	Bitumen .....	Exempt.	Exempt.
179	Jet .....	Exempt.	Exempt.
180	Amber, yellow .....	Exempt.	Exempt.
181	Petroleum, and other mineral oils for illuminating:		5 % a. v. to 47.00
	Crude .....	18.00	
	Refined .....	25.00	
<b>METALS.</b>			
182	Gold and platinum ore .....	Exempt.	Exempt.
	Gold and platinum, crude, in lumps, ingots, bars, dust, and broken ornaments.	10.00	10.00
	Gold, hammered in leaf .....	2,500.00	2,500.00
	Gold, drawn, rolled, or wire .....	500.00	500.00
183	Silver ore .....	Exempt.	Exempt.
	Silver, crude, in lumps, ingots, bars, dust, and broken ornaments.	1.00	1.00
	Silver, hammered in leaf .....	2,000.00	2,000.00
	Silver, drawn, rolled, or wire .....	500.00	500.00
184	Goldsmith's dross .....	Exempt.	Exempt.
185	Aluminium .....	500.00	36 % a. v.
186	Iron ore .....	Exempt.	Exempt and 3.00
187	Cast iron, pig iron, and fragments .....	2.00	2.00
	(for ballast, purified iron called "mazee")		2.75
188	Iron in lumps not freed from dross .....	4.50	4.50
	(Only the lumps of iron containing at least 6 per cent. of dross will be considered under this classification.)		
189	Iron, rolled, bars, angles, and rails of all sorts, and T iron.	6.00	6.00
	(Pig iron containing 6 per cent. or more of dross will be considered as iron not freed from dross.)		20.00
190	Iron, plate or hoop, more than a millimeter thick.	6.00	6.00
191	Iron, sheets and plates, millimeter thick and less.	7.50	7.50
	Iron for wire manufacture .....	6.00	
	Iron, sheet, smooth or hammered, more than a millimeter thick, not cut.	7.50	
	Iron, sheet, smooth or hammered, more than a millimeter thick and cut.	8.00	8.25
192	Iron, sheet, thin and black rolled iron plate 1 millimeter thick or less, not cut to any shape.	10.00	11.25
	Iron, sheet, thin and black rolled iron plate, 1 millimeter thick or less, cut to any shape.	11.00	15.00
193	Iron, tinned, coppered, covered with zinc or lead.	13.00	20.00
	Wire, tinned, &c. (as above), $\frac{1}{16}$ of a millimeter thick or less.	10.00	
194	Wire, tinned, &c. (as above), $\frac{1}{16}$ of a millimeter thick or over.	6.00	
195	Steel in bars and rails .....	6.00	39.00
	Steel in bars, other, of all costs .....	9.00	

TABLE A—Continued.

No.	Articles.	New tariff	Old tariff.
	<b>METALS—Continued.</b>	<i>Per 100 kilos.</i>	<i>Per 100 kilos.</i>
196	Steel in sheets or coils, brown, rolled hot, more than a demi-millimeter thick, not cut.	9.00	39.00 to 263.00
	Steel in sheets or coils, brown, rolled hot, more than a demi-millimeter thick, cut to any shape.	9.90	
	Steel in sheets or coils, brown, rolled hot, demi-millimeter thick, or less, not cut.	15.00	
	Steel in sheets or coils, brown, rolled hot, demi-millimeter thick, or less, cut to any shape.	16.50	
	Steel in sheets or coils, white, rolled cold, of any thickness, not cut.	15.00	
	Steel in sheets or coils, white, rolled cold, of any thickness, cut to any shape.	16.50	
197	Steel wire, white, for strings of instruments.....	20.00	87.00
198	Filings and scales.....	Exempt.	3.00
199	Scrap iron, of wrought or cast iron.....	2.00	12.60
200	Shales and slag.....	Exempt.	3.96
201	Copper ore.....	Exempt.	Exempt.
	Copper, pure or alloyed with zinc or tin, first fusion, in lumps, bars, pigs, or sheets.	Exempt.	Exempt.
	Copper rolled or hammered in pigs or sheet.....	10.00	10.00
	Copper pure or alloyed with zinc or tin, wire of all dimensions.	10.00	Exempt and 15.00 to 120.00.
	Copper, gilt or silvered, in lumps or ingots, tilted, drawn, rolled, or spun on yarn or silk.	100.00	100.00
	Copper filings and fragments of manufactures..	Exempt.	Exempt.
202	Lead ore and slag of all kinds in crude lumps, pigs, bars, or sheets.	Exempt.	Exempt.
	Lead alloyed with antimony in lumps.....	3.00	31.20
	Lead hammered or rolled.....	3.00	28.80
	Lead filings and fragments of old manufactures..	Exempt.	Exempt.
	Tin ore.....	Exempt.	Exempt.
	Tin in crude lumps, block tin, bars or sheets....	Exempt.	Exempt.
203	Tin alloyed with antimony,* in ingots.....	5.00	Exempt.
	Tin, pure or alloyed, hammered or rolled.....	6.00	72.00
	Tin filings and fragments of old manufactures..	Exempt.	Exempt.
	Zinc ore, crude, roasted, or pulverized.....	Exempt.	Exempt.
	Zinc in crude lumps, blocks, bars, or sheets.....	Exempt.	Exempt.
	Zinc, rolled.....	4.00	60.00
204	Zinc filings or fragments of old manufactures...	Exempt.	Exempt.
	Nickel ore.....	Exempt.	Exempt.
	Nickel, regulus speiss.....	Exempt.	Exempt.
	Nickel, pure or alloyed, in ingots or crude lumps, alloyed with copper or zinc.	Exempt.	Exempt.
	Nickel, pure or alloyed, particularly with copper or zinc, rolled or drawn.	10.00	120.00
	Mercury, native.....	Exempt.	Exempt.
205	Antimony, ore.....	Exempt.	Exempt.
	Antimony, smelted.....	Exempt.	1.20
	Antimony, regulus metallic.....	6.00	31.20
	Arsenic ore, metallic.....	Exempt.	Exempt.
	Cadmium, crude.....	Exempt.	2.40
	Bismuth.....	Exempt.	Exempt.
210	Manganese ore.....	Exempt.	Exempt.
211	Cobalt, vitrified in lumps or powder.....	Exempt.	Exempt.
212	Ores not specified.....	Exempt.	Exempt.
	<b>MANUFACTURES.</b>		
	<i>Chemicals.</i>		
214	Bromine and bromide of potassium.....	100.00	48.00
215	Iodine, crude or refined.....	400.00	600.00
216	Iodide of potassium.....	350.00	
217	Phosphorus, white.....	50.00	Prohibited.
	Phosphorus, red.....	149.00	
	Arsenious acid.....	Exempt.	
	Benzoic acid.....	124.00	
	Boracic acid.....	Exempt.	
	Hydrochloric acid.....	0.37	
218	Citric acid (juice of lemon, natural or concentrated, up to 10°, inclusive).	Exempt.	1.20
	Citric acid, from 10° to 35°.....	6.00	1.20
	Citric acid, above 35°.....	15.00	180.00
	Citric acid, crystallized.....	50.00	180.00
	Gallic acid, extract of chestnut and other tannic juices, liquid or concrete, from vegetables.	1.20	Prohibited.
	Gallic acid, crystallized.....	93.00	
	Nitric acid.....	2.50	108.70
	Oleic acid.....	5.00	Exempt.
	Oxalic acid.....	12.50	84.00
	Phosphoric acid.....	20.00	49.20
	Stearic acid.....	10.00	5 % a. v.
	Sulphuric acid.....	Exempt.	49.20
	Tartaric acid.....	10.00	84.00

\* Britannia metal.

TABLE A—Continued.

No.	Articles.	New tariff.	Old tariff.
<b>MANUFACTURES—Continued.</b>			
<b>Chemicals—Continued.</b>			
		<i>Per 100 kilos.</i>	<i>Per 100 kilos.</i>
219	Oxide of cobalt, pure or silicious .....	Exempt.	Exempt.
	Oxide of copper .....	Exempt.	
	Oxide of tin .....	Exempt.	
	Oxide of iron .....	Exempt.	
	Oxide of lead, minium .....	2.00	
	Oxide of lead, litharge and others .....	Exempt.	
	Oxide of uranium .....	Exempt.	
	Oxide of zinc .....	Exempt.	Exempt and 3.00
220	Potash and carbonate of potassium .....	Exempt.	
221	Vegetable ashes .....	Exempt.	
222	Salt of beet root .....	*0.13	0.10 to 0.15
223	Soda of varach (kelp) .....	*0.19	31.80
224	Soda caustic .....	*8.00	Prohibited.
225	Soda, carbonate of* .....		31.80 to 22.80
	Soda, crude, 30° or more .....	2.30	
	Soda, crude, less than 30° .....	7.25	
	Soda, refined soda salt, 60° or more .....	5.00	
	Soda, refined soda salt, less than 60° .....	17.50	
	Soda crystals, less than 60° .....	2.30	
226	Natron .....	2.30	3.00
227	Bicarbonate of soda* .....	5.20	Prohibited.
228	Soda salts not mentioned .....	4.35	
229	Sea salt, brine salt, rock salt† :		
	By land from the Belgian frontier or Luxembourg.	3.00	3.30
	By land from the other frontiers .....	0.74	0.60
	By sea—the channel or ocean .....	2.60	3.30
	By the Mediterranean .....	0.74	0.60
229½	Sal ammonia, crude .....	8.00	60.00 to 120.00
	Sal ammonia, refined* .....	12.00	
	Sulphate ammonia, crude .....	Exempt.	
	Sulphate ammonia, refined .....	7.75	
	Other salts, crude .....	3.00	
	Other salts, refined .....	7.75	Exempt.
230	Salts of cobalt .....	Exempt.	
231	Salts of silver .....	930.00	Prohibited.
232	Salts of tin .....	10.00	Prohibited.
233	Acetates of copper, crude .....	10.00	15.00 to 84.00
	Acetates of copper, refined powder .....	14.50	
	Acetates of copper, refined crystals .....	21.00	
	Acetates of iron, liquid .....	Exempt.	
	Acetates of iron, concentrated .....	10.00	
	Acetates of lead (sugar of lead) .....	5.50	
	Acetates of potash .....	22.00	
	Acetates of soda, anhydrous .....	5.00	
234	Alcohol, amylic .....	6.25	Prohibited.
	Alcohol, mythyline .....	9.25	
235	Aluminate of soda* .....	13.50	Prohibited.
236	Alum of ammoniac, or potash and sulphate of alumine.	1.50	
237	Ammoniaque (volatile alkali) .....	3.00	84.00
238	Arseniate of potash .....	8.75	
	Arseniate of soda .....	4.25	Prohibited.
239	Borax, crude, native, or artificial .....	8.75	5.00 to 5.50
	Borax, half refined or refined .....	10.00	70.00
240	Carbonate of magnesia .....	6.25	240.00
	Carbonate of lead .....	2.00	Exempt.
241	Citrate of lime .....	7.50	1.20
242	Chlorate of potash,* soda, and others .....	32.00	Prohibited.
243	Chloride of aluminium .....	200.00	Prohibited.
	Chloride, double, of aluminium and sodium .....	18.50	Prohibited.
	Chloride of lime* .....	4.50	Prohibited.
	Chloride of magnesia* .....	0.50	Prohibited.
	Chloride of potash .....	Exempt.	Exempt.
244	Chromate of potash .....	10.00	180.00
	Chromate of lead .....	16.00	90.00
245	Glycerine, for manufactures .....	4.75	Prohibited.
	Glycerine, colorless and odorless .....	7.50	
246	Kermes, liver of antimony, mineral crocus and other oxides or salts of antimony excepting the emetic.	25.00	Prohibited.
247	Lactate of iron .....	43.00	
248	Calcined magnesia .....	18.50	Exempt.
249	Nitrate of potash (saltpeter) and soda .....	Exempt.	
250	Oxalic of potash .....	12.50	84.00
251	Silicate of soda, anhydrous .....	4.25	Prohibited.
	Silicate of soda, crystallized .....	3.75	
	Silicate of soda, hydrate .....	2.10	

\* Including the cost of superintendence of the manufacture of soda.

† These duties do not include the inland consumption tax. ‡ All chemicals.

TABLE A—Continued.

No.	Articles	New tariff	Old tariff.
<b>MANUFACTURES—Continued.</b>			
<b>Chemicals—Continued.</b>			
		<i>Per 100 kilos.</i>	<i>Per 100 kilos.</i>
	Sulphate of copper .....	3.00	37.20
	Sulphate of iron .....	0.65	7.20
	Sulphate, double, of iron and copper .....	0.50	22.20
	Sulphate of magnesia .....	Exempt.	84.00
	Sulphate of potash .....	Exempt.	Exempt.
	Sulphate of soda,* pure, anhydrous, or containing 25 per cent. of salt or less. }	2.20 }	7.20 }
	Sulphate of soda,* pure, anhydrous, or containing more than 25 per cent. of salt. }	9.00 }	1.80 }
252	Sulphate of soda*, pure, crystallized or hydrate (Glauber's salts). }	1.20 }	1.75 }
	Sulphate of soda, impure, anhydrous, containing more than 25 per cent. of salt. }	8.25 }	1.20 }
	Sulphate of soda, impure, anhydrous, containing 25 per cent. of salt or less. }	2.20 }	7.20 }
	Sulphate of soda, impure, crystallized or hydrate (Glauber's salts). }	1.10 }	6.60 }
	Sulphate of zinc .....	1.40	1.75
253	Sulphite of soda* .....	2.20	37.20
254	Hypo-sulphite of soda* .....	4.75	Prohibited.
	Sulphuret of arsenic .....	5 per cent. ad valorem, with power to transfer to specific duty.	9.60
255	Sulphuret of mercury (cinnabar) .....	Exempt.	180.00
	Sulphuret of mercury, artificial (in stones) .....	31.00	240.00
	Sulphuret of mercury, pulverized (vermillion) ..	62.00	
	Tartrate of potash, including the double tartrate of potash and soda. }	Exempt. }	84.00 }
256	Prussiate of potash, yellow .....	20.00	
	Prussiate of potash, red .....	30.00	Prohibited.
	Chemical products of tar and coal .....	Exempt.	Prohibited.
257	(Coal oil, benzine, and other light oils, heavy oils, nitro-benzine, aniline, phenic acid, naphta- line, anthracine, and others not mentioned.) }		
258	All other chemical products not mentioned, in- cluding extracts of quinine, and phosphoric paste. }	5 per cent. ad valorem, with privilege of con- version to specific equivalent duties. }	Prohibited. }
<b>Prepared dyes.</b>			
259	Cochineal .....	Exempt.	12.00
260	Kermes, animal .....	Exempt.	3.00
261	Lac dye .....	Exempt.	6.00
262	Indigo .....		
263	Indigo pastel, balls, and compositions .....	Exempt.	30.00
264	Indigo pastel, coarse paste .....	Exempt.	30.00
265	Cachou in lumps .....	Exempt.	30.00
266	Rocou, prepared .....	Exempt.	
267	Archil paste .....	5.00	120.00
	Archil, dry (cudbear violet) .....	10.00	240.00
268	Maurelle .....	Exempt.	Exempt.
269	Garancine .....	Exempt.	
270	Extracts of dye-stuffs, black and violet. }	20.00 }	Prohibited. }
	Extracts of dye-stuffs, red and yellow. }	30.00 }	
	Coal-tar dyes, dry .....	125.00	
271	Coal-tar dyes, paste containing 50 per cent. water. }	70.00 }	
	Coal-tar dyes, picric acid .....	25.00	
272	Artificial madder .....	5 per cent. ad valorem, with privilege to trans- fer to specific duties.	
<b>Colors.</b>			
273	Ultramarine .....	†20.00	300.00
274	Prussian blue .....	12.00	Exempt.
275	Carmines, common .....	25.00	Exempt.
	Carmines, fine .....	200.00	Exempt.
	Varnishes, alcohol .....	30.00	
276	Varnishes, essence .....	20.00	
	Varnishes, oil or essence or oil mixed. }	40.00 }	49.20 to 98.40 }
277	Ink, writing, printing, or drawing .....	20.00	
	Ivory, black .....	5.00	74.40
278	Black for printing in mild out .....	8.00	
	Black, Spanish or lamp .....	1.20	1.20
	Black, mineral (ore) .....	Exempt.	Exempt.
	Penella, crayons simple, slate .....	1.00	
	Penella, carpenters', common, in soft wood .....	35.00	
279	Penella, blue, in cedar or hard woods .....	140.00	12.00 to 240.00
	Penella for pocket-books, with or without bone heads. }	240.00 }	

\* Including the tax for the cost of superintending the manufacture of soda.

† Including the tax of cost for soda-salts in the manufacture of ultramarine.

TABLE A—Continued.

No.	Articles.	New tariff.	Old tariff.	
MANUFACTURES—Continued.				
Colors—Continued.				
		Per 100 kilos.	Per 100 kilos.	
280	Colors ground or otherwise prepared for painting.	0. 25	Not specified.	
281	Earths, cologne, cassell, Italian sienna, and umber.	0. 50		
282	Green schweinfurt, and mixed green; blue and green ashes.	5. 00		
283	Green Mountain brunswick and others, formed by mixing chromate of lead and Prussian blue.	5. 00		
284	Talc pulverized .....	0. 25		
285	Ground oil colors, including carbonate of lead in oil.	4. 00	Exempt.	
286	Water colors in paste for paper hangings .....	7. 50		
287	Colors not specified ... ..	5 per cent. ad valorem, with power to transfer to a specific duty.		
Various compounds.				
288	Perfumery, soaps .....	12. 00	6. 00 to 190. 00	
	Perfumery, alcoholic*, per hectoliter of pure alcohol.	37. 50	15. 00	
	Not alcoholic .....	12. 00	Prohibited.	
289	Soap, common .....	6. 00		
290	Lichen ferment .....	6. 00		
291	Prepared spices:		30. 00 to 240. 00	
	Mustard .....	5. 00		
	Sauces, &c .....	25. 00	35. 00 120. 00 And prohibited.	
292	Medicaments not mentioned, specified in the official Pharmacopia.†	(See note) .....		
	Medicaments not mentioned and not specified in the official Pharmacopia.	Prohibited.		
293	Distilled alcoholic waters .....	Same duty as brandy.	35. 00	
	Distilled waters not alcoholic .....	10. 00	6. 00 to 10. 00	
294	Chicory, roasted or ground .....	5. 00	55. 00	
295	Starch .....	6. 00		
296	Native feculas .....	6. 00		
297	Sealing-wax .....	30. 00	120. 00	
298	Candles of all sorts* .....	19. 00	10 % av.	
299	Wax and stearic acid not in candles .....	19. 00	4. 00	
300	Candles having wicks twisted, woven, or plaited, and chemically prepared.*	12. 00	5 % and 10 % av.	
	Other candles .....	6. 00		
301	Fish glue .....	40. 00	Exempt.	
302	Glue and gelatine .....	Exempt.	Exempt.	
303	Albumin .....	Exempt.	Exempt.	
304	Ginger-bread .....	15. 00	15. 00	
305	Milk sugar (lactine) .....	Exempt.	Special.	
306	Blacking .....	4. 00		
BEVERAGES.				
307	Fermented beverages, wines ‡ .....	Per liquid hectoliters, 4. 50.	If imported from European ports add 8.00 per 100 kilos gross weight to the following.	
	Article 6 of the law of May 8, 1869, is abrogated. Wines showing proof of 15° shall be liable to the duty on alcohol according to quantity of spirit exceeding 15°, and shall be subject to the import duty on wine for the remainder of the liquid.			
308	Fermented liquors, vinegar not perfumery‡ .....	4. 50	2. 00	
309	Cider, perry, and verjuice‡ .....	1. 00	2. 40	
310	Beer§ .....	7. 75	7. 20	
311	Mead‡ .....	20. 00	30. 00	
312	Orange juice .....	Same duty as wine.	30. 00	
313	Distilled beverages:			
	Alcohol and brandy in bottles, per liquid hectoliter.	30. 00	30. 00	
	Alcohols and brandy not in bottles .....	30. 00	30. 00	
	Other alcohols .....	30. 00	30. 00	
	Liqueurs .....	40. 00	30. 00	
	All products composed partly or mostly of alcohol shall be subject, exclusively to the custom dues bearing upon them, to the internal revenue dues on alcohol in use; said dues shall be decided by the consulting committee of arts and manufactures.			
			30 to 35	

\* Not including the tax in the interior.

† Specific duties to be decided by the high school of pharmacy, rating at 10 per cent. ad valorem, exclusive of the duties which may be fixed on medicaments composed of dutiable substances, either by the custom-house or internal revenue.

‡ Exclusive of the internal revenue.

§ Including the discriminating duty representing the manufacture duty levied on French beer.

TABLE A—Continued.

No.	Articles.	New tariff.	Old tariff.
	BEVERAGES—Continued.	Per 100 kilos.	Per 100 kilos.
315	Apples and pears, crushed.....	Exempt.	2. 40
316	Mineral waters, including jars.....	Exempt.	Exempt.
	POTTERY.		
317	Potteries of common clay .....	Exempt.	Exempt.
	Potteries, gas retorts .....	Exempt.	Exempt.
318	Potteries, crucibles of all sorts, including those in graphite or plumbago.....	Exempt.	Exempt.
319	Potteries, drain-pipes and others.....	Exempt.	Exempt.
320	Potteries, clay pipes .....		7. 20
	Potteries, others not glazed .....		
321	Potteries, others glazed, without decorations of sculpture or painting (coarse pottery).....	Exempt.	Exempt.
	Potteries, others, glazed with decorations in re- lief, one or many colors (flat and hollow).....	5. 00	5. 00
322	Potteries, utensils and apparatus for chemical manufactures.....	Exempt.	Exempt.
	Potteries, others, common, of all sorts at and hollow), including bottles, carafa, and house- hold articles.....	4. 00	4. 00
323	Potteries, others, fine, potteries plain and deco- rated, manufactured from fine paste, washed, and baked.....	8. 00	15 % av.
	Ceramic tiles with or without decoration in color	3. 00	
324	Ceramic tiles, plain, formed throughout of the same color-paste and grain.....	1. 00	
	Faïences stannifères of colored paste, covered white or colored, with ornaments in relief, flutings or indentations, monochrome, molded, not finished by hand.....	Exempt.	Exempt.
325	Faïence, particolored glaze, stamped or hand painted or molded and hand finished.....	15. 00	15 % av.
	Faïence, fine (fine white, paste baked, and cleansed) white, or covered with uniform col- ored glaze.....	10. 00	
326	Faïence, fine, decorated .....	15. 00	*10. 00 to 392. 40
	White porcelain .....	12. 50	
327	Decorated porcelain .....	25. 00	
	Decorated porcelain of fortified thickness .....	15. 00	
	Porcelain, Parian, and white and colored biscuit.....	25. 00	
	GLASS AND CRYSTAL.	Per square meter.	Per square meter.
	Mirrors of surface less than half a square meter.....	25. 00	20. 00
	Mirrors of surface from half to one meter, crude, per square meter.....	1. 20	10 % av.
328	Mirrors from half meter, inclusive, to one meter, exclusive, polished and backed.....	3. 75	4. 00
	Mirrors one square meter, crude.....	1. 90	1. 50
	Mirrors one square meter, polished and backed..	5. 00	4. 00
	Goblets of glass, simple and molded or pressed, white or tinted throughout one color.....	4. 25	
329	Goblets cut or engraved in any other manner than is necessary for effacing the mark of the "pontil".....	12. 50	Prohibited.
	Goblets decorated in gold or colors .....	31. 00	
330	Window glass, ordinary.....	4. 25	
	Stained glass, engraved, polished .....	18. 50	
	Watch crystals, spectacle and opticians' glass, including glasses for false watches, crude.....	15. 00	
331	Same, cut and polished .....	149. 00	240. 00
	Vitrifications and enamel (casting) in lumps or tubes.....	4. 75	
332	Vitrifications, in beads, pierced and cut, or in imitation jewelry, brooches, colored or not, lined, balls and imitation coral.....	25. 00	10 % av. to 360. 00
333	Bottles, full or empty.....	3. 00	0. 18
334	Broken glass .....	Exempt.	Exempt.
336	Other glass objects not mentioned.....	18. 50	10 % av.
	YARNS.	Per 100 kilos.	Per 100 kilos.
	Yarn, single, unbleached, measuring by the kilo- gram—		
	2, 000 meters or less.....	16. 00	
	More than—		
337	2, 000, not exceeding 5, 000 meters.....	18. 00	30 to 172
	5, 000, not exceeding 10, 000 meters.....	23. 00	
	10, 000, not exceeding 20, 000 meters.....	33. 00	
	20, 000, not exceeding 30, 000 meters.....	40. 00	
	30, 000, not exceeding 40, 000 meters.....	50. 00	
	40, 000, not exceeding 60, 000 meters.....	70. 00	
	60, 000, not exceeding 80, 000 meters.....	99. 00	

\* Specifications of old tariff which have been consolidated in the new.

TABLE A—Continued.

No.	Articles.	New tariff.	Old tariff.*
	<b>YARNS—Continued.</b>	<i>Per 100 kilos.</i>	<i>Per 100 kilos.</i>
	More than—		
	80,000, not exceeding 100,000 meters.....	149. 00	
	100,000 meters.....	200. 00	
	(Polished threads under 2,000 meters are aggregated with strings, and over 2,000 are aggregated with flax or hemp threads, single or double.)		
337	Single thread, bleached or dyed..... (double yarn, unbleached).....	Duties on single yarn increased by 30 per cent.	30. 00 to 172. 00
	Double yarn, bleached or dyed.....	Duties on single yarn, bleached or dyed, increased by 30 per cent.	
	Yarn, flax or hemp mixed, the flax or hemp predominate in weight.	Same duties as on yarn of pure flax or hemp, according to the class.	
	<i>Pure jute threads.</i>		
	Yarn of pure jute, unbleached, measuring by the kilogram—		
	Less than 1,400 meters.....	6. 25	
	From 1,400 meters to 3,700 meters.....	7. 50	
	From 3,700 meters to 4,200 meters.....	8. 75	
	From 4,200 meters to 6,000 meters.....	12. 50	
	More than 6,000 meters.....	Same duties as yarn of flax or hemp, according to the class.	
338	Yarn of pure jute, bleached or dyed, measuring by kilograms—		
	Less than 1,400 meters.....	8. 75	5. 00 to 14. 00
	From 1,400 meters to 3,700 meters.....	11. 00	
	From 3,700 meters to 4,200 meters.....	12. 50	
	From 4,200 meters to 6,000 meters.....	17. 50	
	More than 6,000 meters.....	Same ruling as flax or hemp yarn.	
339	Yarn of mixed jute, the jute predominating in weight.	Same duties as pure jute yarn.	
	Yarn of phormium tenax, abaca, and other fibrous vegetables not mentioned, either pure or mixed, the phormium or abaca, &c., predominating in weight.	Same duties as yarn of jute.	
	<i>Cotton yarns.</i>		
	Simple yarn, unbleached, measuring by kilograms:		
	20,500 meters or less.....	18. 50	
	20,500 to 30,500 meters.....	25. 00	
	30,500 to 40,500 meters.....	37. 00	
	40,500 to 50,500 meters.....	50. 00	
	50,500 to 60,500 meters.....	62. 00	
	60,500 to 70,500 meters.....	74. 00	
	70,500 to 80,500 meters.....	87. 00	
	80,500 to 90,500 meters.....	112. 00	
	90,500 to 100,500 meters.....	124. 00	
	100,500 to 110,500 meters.....	149. 00	
	110,500 to 120,500 meters.....	174. 00	
	120,500 to 130,500 meters.....	198. 00	
340	130,500 to 140,500 meters.....	248. 00	15. 00 to 415. 00
	140,500 to 170,500 meters.....	310. 00	
	170,500 meters.....	372. 00	
	Simple cotton yarn:		
	Bleached.....	Duties on single unbleached yarn increased 15 per cent.	
	Dyed or chiné.....	For ordinary dyes, 30 centimes per kilogram in addition to the duty on unbleached yarn. For dyes in Turkey red, 60 centimes per kilogram in addition to the duty on unbleached yarn.	
	<i>Cotton yarn, twisted.</i>		
	Cotton yarn, twisted in two or three strands:		
341	Unbleached.....	Duty on simple yarn augmented 30 per cent.	840. 00 to 960. 00
	Bleached.....	Duty on twisted unbleached yarn augmented 15 per cent.	Some prohibited.

\* Specifications of old tariff changed in the new.

TABLE A—Continued.

No.	Articles.	New tariff.	Old tariff.
<b>YARNS—Continued.</b>			
<i>Cotton yarn, twisted—Continued.</i>		<i>Per 100 kilos.</i>	<i>Per 100 kilos. 4 % added.</i>
341	Dyed in common dyes or chine .....	30 centimes per kilogram over and above the duty on twisted unbleached yarn.	840. 00 to 900. 00
	Dyed in Turkey red .....	60 centimes over and above the duty on twisted unbleached yarn.	
	Cotton yarn, twisted in twists of four strands or more, bleached, unbleached, or dyed:		
	Single twist .....	15 centimes per 1,000 meters of simple yarn.	
	Double twist or cabled .....	2 centimes per 1,000 meters simple yarn.	
	Cotton yarn, made up in balls, spools, skeins, cards, or other forms, regardless of the number of strands, of bleaching, unbleaching, dyeing, simple twist.	2 centimes per 1,000 meters simple yarn.	
	Doubled twisted or cabled .....	25 centimes per 1,000 meters.	
	Chains warped in cotton yarn:		
	Unbleached .....	Duty on the yarn of which they are composed augmented by 30 per cent.	
	Bleached .....	Duty on the chains warped, unbleached, augmented by 15 per cent.	
342	Dyed .....	For ordinary dyes, 30 per cent. per kilogram over and above the duty on the chains warped, unbleached. For dyes in Turkey red, 60 centimes per kilogram over and above the duty on chains warped unbleached.	
343	Cotton yarn mixed, the cotton denominating in weight.	Same duty as that of pure cotton yarn.	
<b>WOOLS.</b>			
343½	Wools, including alpaca, lama, vicuna, yack, and camels' hair, carded or combed.	25. 00	10. 00 to 225. 00
	Dyed .....	25. 00	
	Yarn of pure wool, bleached or unbleached, combed, measuring to the kilogram—		
	30,500 meters or less .....	31. 00	
	30,500 to 40,500 meters .....	43. 00	
	40,500 to 50,500 meters .....	56. 00	
	50,500 to 60,500 meters .....	68. 00	
	60,500 to 70,500 meters .....	81. 00	
	70,500 to 80,500 meters .....	93. 00	
	80,500 to 90,500 meters .....	105. 00	
344	90,500 to 100,500 meters .....	118. 00	
	100,500 meters .....	124. 00	
	Yarn of pure wool, simple, bleached or unbleached, carded, measuring to the kilogram—		
	10,000 meters or less .....	18. 50	
	10,000 to 15,000 meters .....	28. 00	
	15,000 to 20,000 meters .....	37. 00	
	20,000 to 30,000 meters .....	46. 00	
	30,000 meters .....	56. 00	
	Yarn of pure wool, simple, dyed, combed, measuring to the kilogram—		
	30,500 meters or less .....	62. 00	
344	30,500 to 40,500 meters .....	74. 00	
	40,500 to 50,500 meters .....	87. 00	
	50,500 to 60,500 meters .....	99. 00	
	60,500 to 70,500 meters .....	112. 00	
	70,500 to 80,500 meters .....	124. 00	
	80,500 to 90,500 meters .....	136. 00	
	90,500 to 100,500 meters .....	149. 00	
	100,500 meters .....	155. 00	
	Yarn of pure wool, simple, dyed, carded, measuring to the kilogram—		
	10,000 meters or less .....	50. 00	
344	10,000 to 15,000 meters .....	59. 00	
	15,000 to 20,000 meters .....	68. 00	
	20,000 to 30,500 meters .....	77. 00	
	30,500 meters .....	87. 00	

TABLE A—Continued.

No.	Articles.	New tariff.	Old tariff.
	<b>YARN—Continued.</b>		
	<b>Wools—Continued.</b>		
		<i>Per 100 kilos.</i>	<i>Per 100 kilos.</i>
	Yarn of pure wool twisted for weaving, bleached or not, combed, measuring to the kilogram in simple thread—		
	30,500 meters or less .....	40. 00	
	30,500 to 40,500 meters .....	56. 00	
	40,500 to 50,500 meters .....	72. 00	
	50,500 to 60,500 meters .....	88. 00	
	60,500 to 70,500 meters .....	104. 00	
	70,500 to 80,500 meters .....	120. 00	
	80,500 to 90,500 meters .....	136. 00	
	90,500 to 100,500 meters .....	152. 00	
	100,500 meters .....	161. 00	
	Yarn of pure wool twisted for weaving, bleached or not, carded, measuring to the kilogram in simple thread—		
	10,000 meters or less .....	28. 00	
	10,000 to 15,000 meters .....	37. 00	
	15,000 to 20,000 meters .....	46. 00	
	20,000 to 30,500 meters .....	56. 00	
	30,500 meters .....	65. 00	
345	Yarn of pure wool twisted for weaving, dyed, combed, measuring to the kilogram in simple thread—		
	30,500 meters or less .....	71. 00	
	30,500 to 40,500 meters .....	87. 00	
	40,500 to 50,500 meters .....	99. 00	
	50,500 to 60,500 meters .....	112. 00	
	60,500 to 70,500 meters .....	124. 00	
	70,500 to 80,500 meters .....	138. 00	
	80,500 to 90,500 meters .....	152. 00	
	90,500 to 100,500 meters .....	166. 00	
	100,500 meters .....	174. 00	
	Yarns of pure wool twisted for weaving, dyed, carded, measuring to the kilogram in simple thread—		10. 000 to 225. 00
	10,000 meters or less .....	59. 00	
	10,000 to 15,000 meters .....	68. 00	
	15,000 to 20,000 meters .....	77. 00	
	20,000 to 30,500 meters .....	87. 00	
	30,500 meters .....	96. 00	
	Yarn of pure wool twisted for tapestry, combed, bleached or not, measuring to the kilogram in simple yarn—		
	30,500 meters or less .....	46. 00	
	30,500 to 40,500 meters .....	65. 00	
	40,500 to 50,500 meters .....	84. 00	
	50,500 to 60,500 meters .....	102. 00	
	60,500 to 70,500 meters .....	121. 00	
	70,500 to 80,500 meters .....	139. 00	
	80,500 to 90,500 meters .....	158. 00	
	90,500 to 100,500 meters .....	177. 00	
	100,500 .....	186. 00	
346	Yarn of pure wool twisted for tapestry, combed, dyed, measuring to the kilogram in simple thread—		
	30,500 meters or less .....	77. 00	
	30,500 to 40,500 meters .....	96. 00	
	40,500 to 50,500 meters .....	115. 00	
	50,500 to 60,500 meters .....	133. 00	
	60,500 to 70,500 meters .....	152. 00	
	70,500 to 80,500 meters .....	170. 00	
	80,500 to 90,500 meters .....	189. 00	
	90,500 to 100,500 meters .....	208. 00	
	100,500 .....	217. 00	
347	Yarn, alpaca, lama, vicuna, or camel's hair, pure or mixed with other fibers, the alpaca, lama vicuna or camel's hair predominating in weight.	Same duties as pure wool yarn.	Prohibited.
	Yarn, goat hair pure or mixed; the goat hair preponderating.	30. 00	
348	Yarn of other hair .....	Exempt.	
	Yarn, wool, mixed with filaments other than alpaca, lama vicuna, or camel's hair, the wool preponderating.	Same duties as those on pure wool yarn.	

TABLE A—Continued.

No.	Articles.	New tariff.	Old tariff.
YARN—Continued.			
Silk flock yarn.			
249	Yarn of silk flock (silk fleuret), bleached, unbleached, azured, or dyed, measuring to the kilogram—	Per 100 kilos.	Per 100 kilos.
	Simple, 80,500 meters or less.....	93.00	78.00
	Simple, more than 80,500 meters.....	149.00	124.80
	The same twisted .....	Duty on simple thread augmented 30 per cent.	
	Yarn of waste silk flock .....	31.00	26.00
	The same twisted .....	Duty on the foregoing augmented 30 per cent.	
TISSUES.			
Fabrics of flax or hemp, pure, uniform, or worked.			
350	Ecrus, showing in warp and woof spaces of 5 square millimeters after division of the whole by 2—		19.20 to 367.20
	6 thread or less.....	28.00	
	7 to 8 threads.....	42.00	
	9 to 10 threads .....	68.00	
	11 to 12 threads.....	81.00	
	13 to 14 threads.....	112.00	
	15, 16, and 17 threads .....	143.00	
	18, 19, and 20 threads .....	230.00	
	21, 22, and 23 threads .....	344.00	
	(Over 23 threads.....	460.00	
	Bleached, dyed, or printed .....	Duty on ecru augmented 30 per cent.	
In counting the threads, both of the warp and woof, the fractions of threads are not counted; the total of both numbers is divided by 2, and if the quotient be fractional, the fraction shall be counted as an entire thread.			
Fabrics of pure hemp or flax.			
351	Oil cloth .....	30.00	72.00 to 436.80
352	Linens, damasked, for bedding and furniture, unbleached.	112.00	
	The same bleached or mixed with white or colored threads.	The same duty as the next above augmented 30 per cent.	
353	Table linen damasked, ecru, showing space of 5 square millimeters in the chain—		
	12 threads or less.....	93.00	
	13 and 14 threads.....	129.00	
	15, 16, 17 threads.....	165.00	
	18, 19, 20 threads.....	265.00	
	21, 22, 23 threads.....	395.00	
	More than 23 threads.....	530.00	
	Bleached, chined, or mixed with white or colored threads.	Duty on the unbleached augmented 30 per cent.	
In counting the threads of the warp the fractions of threads are not counted.			
354	Tickings, unbleached .....	120.00	72.00 to 436.80
	Tickings, crémé, white, or mixed with white or colored threads.	Same duty as on unbleached augmented 30 per cent.	
355	Passementerie and ribbons, unbleached, russet, or grassed.	149.00	
	The same, crémé, bleached, or dyed .....	174.00	
356	Hosiery .....	124.00	
357	Laces and linen guipure .....	Same duty on laces and cotton guipure.	
358	Embroidered handkerchiefs and other embroideries on linen.	496.00	
	Mixed fabrics, flax and hemp predominating in weight.	Duties on linen or hemp fabrics according to kind.	
Pure jute fabrics.			
359	Pure jute fabrics, showing in warp and woof 5 square millimeters after division of the total by 2—		
	Unbleached 3 threads .....	16.00	
	Unbleached 4 and 5 threads .....	28.00	
	Unbleached 6, 7, and 8 threads .....	30.00	
	Unbleached, more than 8 threads.....	Same duties as linen fabrics.	

TABLE A—Continued.

No.	Articles.	New tariff.	Old tariff.
Tissues—Continued.			
Pure jute fabrics—Continued.			
Pure jute fabrics—Continued.		Per 100 kilos.	Per 100 kilos.
360	Bleached or dyed 3 threads.....	18. 50	5. 00 to 38. 00; same as linen.
	Bleached or dyed 4 and 5 threads.....	38. 00	
	Bleached or dyed 6, 7, and 8 threads.....	43. 00	
	Bleached or dyed, more than 8 threads .....	Same duties as linen fabrics.	
	In the threads, both of warp and woof, the fractions of thread are not counted; the total of both numbers is divided by 2, and if the quotient be fractional, the fraction shall be counted as an entire thread.		
361	Carpets .....	25. 00	24. 00
362	Mixed fabrics, principally jute .....	Same duties as pure jute fabrics.	15 % a. v.
363	Fabrics of <i>phormium tenax</i> , abaca, and other vegetable fibers not mentioned.	Same duties as pure jute fabrics.	10 % a. v.
Cotton fabrics.			
364	Fabrics of pure cotton, unbleached, showing warp and woof in spaces of 5 square millimeters, and weighing—		100. 00; with per centage ad val. added, and in several specifications prohibited.
	From 11 kilograms and over to the 100 square meters—		
	30 threads or under.....	62. 00	
	31 threads or over.....	100. 00	
	From 7 to 11 kilograms—		
	35 threads or less.....	95. 00	
	36 threads to 43 threads .....	125. 00	
	44 threads and over .....	250. 00	
	From 5 to 7 kilograms—		
	27 threads and less .....	100. 00	
	28 to 35 threads .....	145. 00	
	36 to 43 threads .....	235. 00	
	44 threads and over .....	300. 00	
	From 3 to 5 kilograms—		
	27 threads or less .....	230. 00	
	28 threads to 35 threads.....	300. 00	
	36 threads to 43 threads .....	410. 00	
	44 threads and over.....	625. 00	
365	Under 3 kilograms .....	070. 00	
	In counting the threads in the warp and woof the fractions of threads are not counted.		
366	Fabrics of pure cotton bleached .....	Same duties as on the unbleached increased by 15 per cent.	100. 00; with per centage ad val. added, and in several specifications prohibited.
	Fabrics of pure cotton dyed in Turkey red .....	Duties on unbleached augmented 60 francs per 100 kilograms.	
	The same, other dyes.....	Duties on unbleached augmented 30 francs per 100 kilograms.	
367	Fabrics of pure cotton prints on other ground than Turkey red are liable to the duties on unbleached fabrics, according to sort, augmented as follows:		
	For linings (100 meters long by not more than 1 meter wide).	2. 50	
	For other prints (100 meters long by not more than 1 meter wide) of one and two colors.	3. 75	
	For other prints (100 meters long by not more than 1 meter wide) of from three to six colors.	6. 25	
	For all other prints (100 meters long by not more than 1 meter wide) of seven or more colors.	10. 00	
	(When the width of the goods exceeds one meter the discriminating duty for the print shall be proportionably increased).		
	Fabrics of pure cotton printed on ground of Turkey red.	Duties on unbleached goods according to sort, augmented—1st, by 60 francs per 100 kilograms; and, 2d, by discriminating duties applicable to other printed goods.	

TABLE A—Continued.

No.	Articles.	New tariff.	Old tariff.
	Tissues—Continued.	Per 100 kilos.	Per 100 kilos.
	<i>Cotton fabrics—Continued.</i>		
368	Cotton velvets, <i>écru</i> .....	142. 00	
	Cotton velvets, dyed or printed .....	174. 00	
369	Cotton velvets, others (cords, mole-skins, &c.) <i>écru</i> .....	100. 00	
	Cotton velvets, dyed or printed .....	131. 00	
370	Fabrics manufactured in whole or part of dyed yarn.	Duty on <i>écru</i> s augmented 60 francs per 100 kilograms.	
371	Brillantes, <i>écru</i> s, and façonnées .....	Duties on plain, unbleached goods, according to sort, augmented by 10 per cent.	
372	Covers, quilts, piques, and reps, weighing over 18 kilograms per 100 square meters.	125. 00	
373	The same, weighing 18 kilograms or less the 100 square meters.	180. 00	
374	Dimities, damasks, and table-cloths, unbleached.	114. 00	
375	Guipure lace for furniture, unbleached. .... (The foregoing articles (brillantes, piques, &c.), if bleached or dyed, shall be liable to the duty on unbleached goods, augmented by the discriminating duties applicable to bleaching or dyeing.)	185. 00	
376	Quilts .....	68. 00	
	Hosiery (cotton or hints thread):		
377	Gloves .....	1, 000. 00	
	Other, cut and seamless .....	125. 00	
	Proportioned or with foot proportioned .....	300. 00	
378	Passementerie .....	236. 00	
379	Ribbons, of pure cotton .....	124. 00	
	Ribbons, mixed with wool, most cotton .....	150. 00	
380	Tulle, coarse-spindle, seven stitches to the square centimeter.	496. 00	
	Tulle, fine-spindle, seven stitches or more to the square centimeter.	700. 00	
381	Tambouring and worked gauze .....	620. 00	
382	Laces and blondes, machine-made, spun, or hand-made.	495. 00	
	Curtains, embroidered muslin, unframed, weighing under 10 kilograms to the 100 square meters.	300. 00	
383	Curtains weighing 10 kilograms and over; also, framed, separate and by the piece, regardless of weight to the 100 square meters.	600. 00	
	Curtains of tulle application, of grenadine, and of embroidered tulle.	900. 00	
384	Mualins, embossed or crotchet, embroidered for furniture or dress, unbleached.	360. 00	
	Bleached muslin, embroidered or embossed, shall be subject to the duty on the unbleached, augmented by 15 per cent.		
385	Machine or hand embroideries .....	800. 00	
386	Lampwicks and plaited candlewicks .....	74. 00	
387	Oilcloths for packing .....	8. 00	
	Oilcloths for furniture, hangings, or other use .....	30. 00	
	Oilcloths, moleskin leather .....	30. 00	
	Cotton mixed goods, most cotton:		
	Silk stuff, silk and cotton flock .....	372. 00	
388	Other stuffs .....	124. 00	
	Passementerie and ribbons, silk and cotton .....	372. 00	
	Other .....	Same duties as on pure cotton fabrics.	
389	Strips in thread or yarn twisted for weaving...	50. 00	
	<i>PURE WOOL FABRICS.</i>		
	<i>Cloths, cassimeres, and other fabrics, pressed, or short nap, unpressed.</i>		
390	Furniture stuffs weighing over 400 grams to the square meter.	124. 00	
391	Moire .....	75. 00	
	Other stuffs not weighing more than 400 grams to the square meter.	211. 00	
392	Other stuffs weighing from 401 to 550 grams .....	186. 00	
	Other stuffs weighing more than 550 grams .....	161. 00	
	Moquette carpets:		
	<i>Bouclé</i> .....	74. 00	
393	<i>Velouté</i> (Wiltons and Axminsters) .....	99. 00	
	Persian .....	186. 00	
	Jacquart, chenille, and others .....	124. 00	

100. 00, with per centage added, and in several specifications prohibited.

10 % a. v. to 100.00

TABLE A—Continued.

No.	Articles.	New tariff.	Old tariff.	
	<b>PURE WOOL FABRICS—Continued.</b> <i>Cloths, cassimeres, &amp;c.—Continued.</i>			
	Hosiery, pure wool, and mixed:	<i>Per 100 kilos.</i>	<i>Per 100 kilos.</i>	
394	Gloves and loose garments .....	650. 00	5 % a. v. to 600. 00; some prohibited.	
	Other, cut, seamless .....	150. 00		
	Other, proportioned, or with foot proportioned	300. 00		
	Passementerie, ribbons .....	248. 00		
	Caps, fez, red caps .....per piece..	0. 35		
395	Tapestries .....	620. 00		
396	Shawls, embossed or worked, not Indian cashmere.	397. 00		
397	Laces .....	372. 00		
398	Furniture velvet, wool .....	223. 00		
399	Bolting-cloth, seamless .....	198. 00		
400	Blankets .....	87. 00		
401	List shoes and Strasbourg slippers .....	87. 00		
402	Cloth listings .....	Exempt.		
	<i>Mixed wool fabrics.</i>			
403	Cloths, cassimeres, and other pressed goods, cotton warp, short nap, mostly wool, and weighing to the square meter—			
	200 grams .....	211. 00		
	201 to 300 grams .....	174. 00		
	301 to 400 grams .....	136. 00		
	401 to 550 grams .....	99. 00		
	551 to 700 grams .....	74. 00		
	From out 700 grams .....	50. 00		
	Fabrics, warp of silk flock, mostly wool .....	297. 00		
	Carpets of wool mixed with other products, regardless of proportions of mixture.	Same duties as those on pure wool.		
	Other fabrics, mostly wool .....	Same duties as on pure wool.		
404	Fabrics of alpaca, vicuna, yack, and camel's hair: Mixed with wool, without regard to proportions of mixture.	Same duties as those on pure wool.	5 % a. v. to 600. 00	
	Mixed with other filaments, the alpaca, vicuna, yack, or camel's hair preponderating.			
	Fabrics in goat's hair, pure or mixed, manufactured out of Europe, mostly goat's hair:			
	Hand-made cashmere shawls, long, per piece			30. 00
	Hand-made cashmere shawls, square, per piece.			20. 00
405	Hand-made scarfs, galleries, borders, fringes, and uniform stuffs.	1, 000. 00		
	Frame-manufactured shawls, uniform, embroidered, embossed, and plain goods.	1, 000. 00		
	Manufactured in Europe .....	Duty on wool goods.		
	Other fabrics in hair, pure, or mixed with other filaments, but mostly hair.	37. 00		
	406	Fabrics in horse hair (passementerie, and other), pure or mixed, but mostly horse-hair.		496. 00
	<b>SILK FABRICS.</b>			
407	Fabrics of silk and silk flock:			
	Foulards, crape, tulle, hosiery, passementerie, and laces in pure silk.	Exempt.	Exempt.	
	Hosiery and passementerie in silk flock, pure, bleached or not, dyed or printed.	248. 00	254. 59	
	Silk flock for furniture, weighing 250 grams to the square meter.	186. 00	998. 40 to 1,622. 40	
	Of silk mixed with silk flock .....	Same duties as fabrics of pure silk flock.		
	Of silk or silk flock, mixed with other textiles, the silk or silk flock preponderating.	372. 00		
	Passementerie or lace, in silk or silk flock, with gold or silver.	1, 488. 00	1,248.00 to 2,121.60	
	Passementerie or lace, in silk or silk flock, with half fine or false gold or silver.	434. 00		
	Ribbons, velvet, silk or silk flock, pure or mixed with other textiles, the silk or silk flock preponderating.	620. 00		
	Ribbons, not velvet, silk or silk flock, pure or mixed with other material, the silk or silk flock preponderating.	496. 00	998. 40	
	408	Clothing, underclothing, and other articles in goods made up either in whole or part.	Duty on such fabrics as may be the heaviest taxed, further augmented by 10 per cent.	

TABLE A—Continued.

No.	Articles.	New tariff.	Old tariff.
	PAPER AND ITS USES.*	Per 100 kilos.	Per 100 kilos.
400	Paper, fancy, colored, marbled, honey-combed or not, with metal.	25. 00	150. 00
	Paper, other, of all sorts.....	11. 00	
410	Paste or card board, in sheets.....	11. 00	
411	Papier maché.....	11. 00	240. 00
	Card board, cut and joined, or in cases, covered with white or colored paper.	36. 00	120. 00
412	Card board, cut and joined, albums, or card boxes decorated with painting, stuffs, woods, straw plaiting, or metals.†	70. 00	
413	Books.....	Exempt.	12. 00 to 120. 00
414	Engravings, stamps, prints, lithographs, photographs, and drawings of all sorts on paper.	Exempt.	300. 00
415	Geographical and marine maps.....	Exempt.	300. 00
416	Music paper, engraved or printed..... (All infractions against copyrights remain prohibited.)	Exempt.	180. 00
417	Cards printed, engraved, and colored.....	11. 00	300. 00
418	Playing cards..... (Cards for children's play are aggregated under the heading of toys).	Prohibited.	Prohibited.
419	Pipes and conduits in bituminous paper.....	1. 25	1. 00
	PREPARED HIDES.		
420	Skins:		
	Prepared, varnished, or morocco.....	74. 00	60. 00
	Sheep, dyed.....	56. 00	45. 00
	Others, dyed.....	74. 00	60. 00
	Others, goat, sheep, or lamb.....	10. 00	60. 00
	Others, not mentioned.....	50. 00	10. 00
	Worked leather or hide.		
421	Boots.....per pair..	2. 00	
	Boots, for men or women.....do...	1. 25	
422	Shoes.....do...	0. 75	
423	Thongs for sabots.....	62. 00	
424	Gloves:		
	Lamb or calf, merely sewn.....per dozen..	1. 00	
	Lamb or calf, piqués.....do...	1. 50	
	Kid, merely sewn.....do...	2. 00	
	Kid, piqués.....do...	2. 50	
425	Fine saddlery articles (not saddles).....	200. 00	
426	Saddles, for men.....per piece..	10. 00	
	Saddles, for women.....do...	12. 00	
427	Harness goods.....	50. 00	
428	Straps.....	62. 00	
429	Leather cylinders.....	62. 00	
430	Trunks, wooden or card-board, covered with leather.	74. 00	2. 00 to 240. 00 (Some prohibited.)
431	Morocco leather, soft.....	200. 00	
	Morocco leather, hard.....	150. 00	
432	Others.....	100. 00	
433	Skins, prepared or in pieces, sewn, with the exception of the following:	1 franc per kilogram.	
	1. Seal skins.		
	2. Phoques and bluebacks.		
	3. ‡ Petit gris, and bags of the same.		
	4. Hamster and white rabbit.		
	5. Astrakans, wavy or curled, in skins or otherwise.		
	6. White hares, and bags of the same.		
	7. Goat skins.		
434	Skins, common, made up and worked.....	1. 60	
	Skins, fine, made up and worked.....	5. 00	
	METAL GOODS.		
437	Works in gold, silver, aluminium, platinum, and other precious metals.	5. 00	
438	Works gilded or silvered by plating, mercury, or electro-chemical processes.		
	False jewelry.....	5. 00	1. 00 to 5. 00 with 1 per cent. added.
	Others.....	1. 00	
	Watches and clocks.		
439	Single gold cases.....per piece..	1. 20	
	Silver or common metal cases.....do...	0. 50	

\*All these duties are exclusive of the internal-revenue taxes on paper established by the laws of September 4, 1871, and June 21, 1873.

†This relates to ornaments in common metals. Albums and card boxes ornamented in precious metals will clear separately under the heading of jewelry.

‡A sort of squirrel.

TABLE A—Continued.

No.	Articles.	New tariff.	Old tariff.	
METAL GOODS—Continued.				
Watches and clocks—Continued.				
		Per 100 kilos.	Per 100 kilos.	
440	Watches, in gold cases .....per piece..	4. 50	1. 32 to 600 00 per centage ad val. in some specifications, and other pro- hibited.	
441	Watches, in silver cases.....do ...	1. 50		
442	Watches, in common metal cases .....do ...	1. 00		
443	Movements (without cases), gilded, nickled, or finished, per piece.	2. 50		
444	Movements, others (without cases), including commencements, per piece.	0. 20		
445	Crude materials .....	50. 00		
446	Clocks for furniture, wood .....	15. 00		
447	Clocks for furniture, others .....	25. 00		
	Clocks for buildings .....	10. 00		
448	Clock movements, large and small .....	50. 00		
449	Musical clocks .....	60. 00		
450	Various calculators, pedometers, &c., per piece ..	1. 00		
451	Coins:			
	Gold and silver.....	1. 00		
	Copper and alloyed, legally current in France.	0. 25		
	Copper and alloyed, not current in France ...	Prohibited.		
452	Machinery and mechanical apparatus: steam, fixed, with or without boilers or fly-wheels.	6. 00		
		12. 00		
453	Marine engines, with or without boilers.....	10. 00		
454	Locomotive and portable engines.....	8. 00		
455	Others, not steam-engines; tenders to locomotives.	6. 00		
456	Machinery for setting sheets and fillet cards.....	10. 00		
457	Carding-machines, not furnished.....	6. 00		
458	Machines for cleaning and opening flax, wool, cot- ton, and other textile materials.			
459	Spinning-machines .....	10. 00		
460	Weaving-machines .....	6. 00		
461	Bobbinnet-machines .....	10. 00		
462	Paper-making machines .....	6. 00		
463	Printing-machines .....	6. 00		
464	Agricultural machines, not including motors.....	6. 00		
465	Steam-boilers of iron plate, cylindrical or spher- ical, with or without heating-tubes.	8. 00		
	Steam-boilers, tubular, sheet iron, with tubes of iron, copper, or brass, with internal furnaces, and all other boilers, not cylindrical, or simply spherical.	12. 00		
	Steam-boilers of steel sheet, all shapes .....	25. 00		
466	Gasometers, open boilers, furnaces, and stoves, iron, or cast and sheet iron.	8. 00		
467	Apparatus in copper for sugar, for heating, and distilling.	10. 00		
468	Sewing-machines. ....	6. 00		
469	Machine tools and machines not mentioned, con- taining—			
	75 per cent. of cast iron, or more .....	6. 00		
	50 to 75 per cent. cast iron.....	10. 00		
	Less than 50 per cent. cast iron .....	15. 00		
MACHINES AND MACHINERY.				
Detached pieces.				
470	Sheets and fillets of cards on leather, india-rub- ber, and woven fabrics, pure or mixed.	50. 00	18. 00 to 240. 00	
471	Sheets and fillets prepared for cards, of leather, india-rubber, and specially woven fabrics.	20. 00		
473	Dents of reeds in iron or copper, reeds, irons and weaving-combs in iron or copper.	30. 00		
474	Others in cast iron, filed and fitted .....	6. 00		
	Others in wrought iron, polished, filed, and ad- justed, or not, without distinction of weight, and including axles, springs, and wheel-bandages.	10. 00		
	Other pieces in wrought steel, springs for car- riages, wagons, and locomotives.	10. 00		
	Other pieces in wrought steel, and other pieces polished, filed, adjusted or not (including axles and wheel-bandages for wagons and locomo- tives), and not weighing more than one kilo- gram.	10. 00		
474	Other pieces in wrought steel; others polished, filed, adjusted or not, weighing one kilogram or less.	20. 00		
	Other pieces in copper, pure or alloyed with any other metals.	20. 00		

TABLE A—Continued.

No.	Articles.	New tariff.	Old tariff.
<b>MACHINES AND MACHINERY—Continued.</b>			
<i>Detached pieces—Continued.</i>			
		<i>Per 100 kilos.</i>	<i>Per 100 kilos.</i>
475	Tools, handled or not, in pure iron.....	10. 00	.
	Tools, iron and steel.....	15. 00	
	Tools, steel.....	20. 00	
	Tools, copper.....	20. 00	
476	Printing type, new.....	8. 00	90. 00 to 270. 00
	Printing type, old, out of use.....	3. 00	
477	Stereotype, designed or not.....	8. 00	
478	Plates or stamps engraved for paper impressions.	Exempt.	
479	Steel or iron plates.....	10. 00	90. 00 to 180. 00
	Copper or brass plates.....	20. 00	
	Wire or steel work in meshes, under 0.02 centimeters wide.	10. 00	
	Others.....	8. 00	
480	Sewing needles under 5 centimeters long.....	248. 00	240. 00 to 960. 00
	Sewing needles over 5 centimeters long.....	124. 00	
481	Knitting needles and other analogous goods, in steel, iron, or copper.	25. 00	
482	Pins.....	50. 00	
483	Fish-hooks.....	50. 00	240. 00
484	Metallic pens, not gold or silver.....	100. 00	
485	Common cutlery, kitchen and butcher knives, and common tailors' scissors.	125. 00	Prohibited.
	Common razors.....	250. 00	
	Others.....	375. 00	
486	Fine cutlery.....	600. 00	
487	Copper cylinders, engraved or not, for impressions.	15. 00	Prohibited.
488	Statues in metal, natural size.....	Exempt.	
489	Works in cast iron, not turned or polished, seats for railway plates, and other castings from the open mold.	3. 00	
490	Straight cylindrical pipes, rafters, and columns, solid or hollow, gas retorts, solid bars, and sets thereof, grates and chimney-backs, shafts of machinery, frames of machines, and other objects without ornaments or fittings.	3. 75	
	Cast iron pots, and all other manufactures not included in the two preceding classes.	4. 50	Prohibited.
	Cast iron, turned or polished.....	6. 00	
	Cast iron, tinned, enameled, or varnished.....	10. 00	
491	Wrought iron: heavy iron wares.....	8. 00	Prohibited.
492	Wrought iron: bent frames, ships' joists, irons for carts or wagons, hinges, handles, large bolts, square knees and other irons for doors and windows, not polished nor turned, wirework couches, seats, and garden or other furniture, with or without accessory ornaments in cast iron, copper, or steel.	8. 00	
493	Locks and padlocks of all sorts, pins, small hinges in sheet iron, latches, flat bolts, and other objects in wrought or cast iron, turned, polished, or filed, for furniture irons or for doors or windows.	12. 00	
494	Anchors, chains, and chain cables, and drags in the French ports and roadsteads under the rulings provided in the law of July 2, 1836.	1. 25	
495	Anchors, chains (others) and cables.....	8. 00	240. 00 to 480. 00 some prohibited.
496	Nails forged by machinery.....	8. 00	
	Nails forged by hand.....	12. 00	
497	Wood screws, screw rings and hooks, the screw having a diameter 7 millimeters or less.	12. 00	
	Wood screws, screw-bolts, rings and hooks, the screw having a diameter over 7 millimeters.	8. 00	240. 00 to 480. 00 some prohibited.
498	Bolts and nuts (iron).....	8. 00	
	Tubes and fittings, iron, butt welded, 9 millimeters or more, inside diameter.	11. 00	
499	The same, having less than 9 millimeters, inside diameter.	20. 00	
	Tubes and fittings, iron, lap welded.....	20. 00	240. 00 to 480. 00 some prohibited.
500	Tubes and fittings, joinings of all sorts.....	20. 00	
	Household ware and other articles not mentioned in iron, polished or painted.	14. 00	
501	The same, tinned, enameled or varnished.....	16. 00	
502	Steel cables.....	25. 00	240. 00 to 480. 00 some prohibited.
503	Small wares (steel) such as beads, buckles, brooches, thimbles.	20. 00	
504	Household wares in steel and other steel goods not mentioned.	20. 00	

TABLE A—Continued.

No.	Articles.	New tariff.	Old tariff.
		<i>Per 100 kilos.</i>	<i>Per 100 kilos.</i>
<b>MACHINES AND MACHINERY—Continued.</b>			
<i>Detached pieces—Continued.</i>			
503	Cast iron and iron :		Prohibited.
	Not polished, the weight of the iron being less than half of the whole.	5. 00	
504	Not polished, the weight of iron not being less than half of the whole.	8. 00	
	Polished, enameled, or varnished, with ornaments in iron, copper, brass, or steel.	12. 00	
505	Copper ware .....	20. 00	
	Copper objects of art, ornaments, and other work.	20. 00	
<b>METALS.</b>			
506	Lead pipe and other work in lead .....	3. 00	
507	Pottery and other work in tin, pure or alloyed with antimony.	30. 00	
508	Works in zinc of all sorts .....	8. 00	
509	Works in nickel, alloyed with copper or zinc....	100. 00	
<b>ARMS AND AMMUNITIONS.</b>			
510	Arms of war .....	Prohibited.	Prohibited.
511	Arms of commerce :		
	Side-arms.....	40. 00	480. 00
	Fire-arms, loading at the mouth .....	240. 00	240. 00
	Fire-arms, breech-loading.....	360. 00	
	Gun barrels, crude.....	60. 00	
512	Gunpowder .....	Prohibited.	Prohibited.
513	Percussion caps :		
	For war .....	Prohibited.	
	For hunting .....	60. 00	10 %.
514	Cartridges :		
	For war .....	Prohibited.	
	For shooting-clubs.....	25. 00	
	For hunting (full) .....	Prohibited.	
	For hunting (empty) .....	60. 00	
515	Projectiles .....	Prohibited.	
516	Miners' wicks :		240. 00
	Ordinary .....	35. 00	480. 00
	With ribbons .....	50. 00	
	In india-rubber.....	80. 00	
517	Fireworks.....	100. 00	
<b>FURNITURE.</b>			
518	Furniture in bent wood, whether mounted or not.	7. 00	
519	Furniture, other :		
	Seats with carving, inlaying, or ornaments of copper and in common wood.	7. 00	
	Seats in hard wood, without carving, inlaying, or copper ornaments.	10. 00	
	The same in any kind of wood.....	15. 00	
	Not seats or chairs, not carved, inlaid, nor ornamented with copper or brass.	10. 00	
	The same, carved, inlaid, and ornamented with brass.	25. 00	
	Heavy common wood furniture (not chairs).....	5. 00	
520	Furniture in hard woods, with or without moldings, but not carved, inlaid, or brass ornamented.	10. 00	
	Heavy furniture (not chairs), in fine wood, carved, inlaid, and ornamented with brass.	18. 00	
	Furniture, stuffed and covered, all sorts.....	15 per cent. above the foregoing duties according to the class of goods.	
521	Frames, and moldings, in wood, and gilt woods..	15. 00	
<b>WOOD.</b>			
522	Empty casks, on stands or not :		
	With wooden hoops .....	2. 00	Exempt.
	With iron hoops.....	2. 50	Exempt.
523	Common brooms .....	Exempt.	Exempt.
524	Pieces of framework, wheelwright's work, rough, cut out, or sawed.	Exempt.	
	The same, shaped .....	Exempt.	
525	Button molds.....	13. 00	15. 60

TABLE A—Continued.

No.	Articles.	New tariff	Old tariff.
	<b>Wood—Continued.</b>		
		<i>Per 100 kilos.</i>	<i>Per 100 kilos.</i>
526	Common sabots.....	12.00	2.40 to 37.20
	The same painted, varnished, or lined with skins.....	25.00	
527	Boxes in white wood.....	2.00	
528	Planks, friezes, and strips of parquet, planed and grooved:		
	In oak or hard wood.....	2.00	
	In pine or soft wood.....	1.00	
529	Coarse wood work.....	4.00	
	Fine wood work.....	4.00	
530	Other wood work.....	7.00	
	<b>MUSICAL INSTRUMENTS.</b>		
		<i>Each.</i>	<i>Each.</i>
	Upright pianos.....per piece.....	50.00	300.00
	Grand pianos.....do.....	75.00	—
	Harmoniums, with or without pedals, weighing—		
	Less than 60 kilograms.....per piece.....	10.00	—
	From 60 to 120 kilograms.....do.....	20.00	—
	From 120 kilograms upward.....do.....	30.00	—
	Church organs, weighing—		
	Less than 4,000 kilograms (packing included), per piece.....	100.00	480.00
	4,000 to 10,000 kilograms.....per piece.....	200.00	—
	10,001 to 20,000 kilograms.....do.....	400.00	—
	20,001 kilograms upwards.....do.....	500.00	—
	Hand organs, with or without figures, having several airs.....per piece.....	15.00	21.60
	Small hand organs.....do.....	2.00	—
	Vielles.....do.....	3.00	—
	Harps.....do.....	50.00	43.20
	Violins, altos, guitars, mandolins, viols d'amour, zithars, and Æolian harps.....per piece.....	2.00	3.60
	Violincellos.....do.....	4.00	—
	Counter bass viols.....do.....	8.00	—
	Small flutes, flageolettes, and musettes:		
	With one key and ocarinas.....per dozen.....	1.20	0.75
	With several keys.....per piece.....	1.00	0.75
	Flutes: With one key.....do.....	0.20	—
	With several keys.....do.....	1.00	0.90
	Hautboys, clarionets, English horns, bag-pipes.....per piece.....	2.00	—
	Ophicleides, bombardons, and helicons.....do.....	4.00	4.80
531	Bassoons, saxophones, sarussophones, and brass instruments with 6 piston.....per piece.....	12.50	—
	Clarions and trumpets.....do.....	0.80	4.80
	Horns and cornets, in brass or horn.....do.....	0.30	3.60
	Hunting-horns.....do.....	1.00	—
	Cornets with three pistons, cornets with keys and pistons, néocors, harmony trumpets, sax-horns, trombones, buccins, and bugles, per piece.....	3.50	—
	Chinese cymbals, large and small drums, chimes, &c.....per piece.....	2.50	9.00
	Tamborines, triangles, and castanettes, per pair.....	0.50	—
	Cymbals.....do.....	1.50	—
	Tamtams and Chinese gongs.....per piece.....	3.00	—
	Accordeons and concertinas.....do.....	1.00	—
	Harmonicas (mouth) in wood or metal, jews-harps (see duty on toys).		21.60
	Musical boxes.....	Duty on watch and clock movements.	6.00
	<b>Accessories and portions of musical instruments:</b>		
	Metronomes.....per piece.....	1.00	0.75 to 3.60
	Apparatus for mechanical playing of pianos and harmoniums.....per piece.....	40.00	
	Pedalers.....do.....	40.00	
	Bows, finished or not, plain.....do.....	0.30	
	Bows, finished or not, richly incrustated do.....	0.60	
	Anches, mouthpieces, and beaks for wind instruments.....per dozen.....	0.50	
	Instrument cases of all sorts.....	Duties on leather, cardboard, &c., according to kind.	
	Detached portions of musical instruments not mentioned.	Duties on wood and metal works, according to the substance of which they may be composed.	

TABLE A—Continued.

No.	Articles.	New tariff.	Old tariff.
	<b>MANUFACTURES IN MATTING, BASKET WORK, OR CORDAGE.</b>		
		<i>Per 100 kilos.</i>	<i>Per 100 kilos.</i>
532	Plaits or mattings of three strands, for cordage..	0. 50	10. 00 to 30. 00.
533	Straw, bark, or mat-weed plaitings of more than three strands, and plaits of white wood for paliasses.	1. 00	
	Straw, bark, or mat-weed fine plaitings more than three strands, or fine white-wood plaitings.	20. 00	
533½	Mattings: coconut, aloes, or mat-weed.....	Duties on jute matting.	
533½	Chinese matting.....	5. 00	
534	Pith of bamboo or rush ratan and reeds of 3 or more millimeters in diameter, rounded on draw-plates.	10. 00	
	The same, prepared or spun, less than 3 millimeters in diameter.	20. 00	
535	Rushes, ratans, reeds, prepared, rounded or not, varnished or not, spun ratan.	20. 00	
536	Basket work in crude twigs .....	5. 00	
	Basket work in strips of wood.....	9. 00	
	Basket work, fine osiers, or straw mixed or not with textile fibers.	45. 00	
537	Straw hats (sewn and overlapped, untrimmed) ..	250. 00	
	Hats of bark, matweed, palm fibers, fine, untrimmed.	150. 00	
538	The same, common.....	50. 00	
	Straw hats of either of the foregoing classes, trimmed.	300. 00	
539	Cordage, fine dressed, of mat-weed, linden, or rushes.	8. 75	
	Cordage, other, measuring, by kilogram of the thread (plain), 500 meters and over.	18. 50	
	The same, measuring, by kilogram of thread (plain), from 501 to 2,000 meters.	22. 50	
539	The same, measuring, by kilogram of thread (plain), over 2,000 meters.	Duties on twisted flax or hemp thread.	
539	Fishing nets .....	20. 00	
	<b>WORKS IN VARIOUS SUBSTANCES.</b>		
540	Carriages, weighing 125 kilograms or more.....	50. 00	Prohibited and from 10 % a. v. to 18 % a. v.
	The same, weighing less than 125 kilograms, including velocipedes.	120. 00	
	Vehicles for commerce, agriculture, &c., on springs.	12. 00	
541	The same, not on springs.....	6. 00	
	Rail or tramway carriages for ordinary roads, railroads, and first-class carriages.	16. 00	
541	The same, second and third class carriages.....	11. 00	
	Carriages, rail or tramways, freight cars .....	9. 00	
	Carriages for tramways (street cars) .....	20. 00	
	Carriages for narrow-gauge railroads.....	20. 00	
	Freight cars for narrow-gauge railroads.....	10. 00	
541	Carriages for tramways (street cars) for narrow gauge.	25. 00	
541	Gravel cars.....	5. 00	
	<b>VESSELS.</b>		
542	Steam or sailing vessels in wood or iron equipped, per gauge ton.	2. 00	40. 00 to 60. 00.
543	Small boats of iron or wooden vessels, per gauge ton.	2. 00	
544	Wooden river boats, all sizes ....per gauge ton.	10. 00	
	Iron river boats, all sizes .....do.....	40. 00	
545	Vessels for breaking up, in wood.....do.....	0. 30	
	The same, sheathed in metal .....do.....	0. 75	
546	Apparatus or equipments of vessels not mentioned:		
	In metal.....	Duties on metals according to kind of metal.	
	In wood .....	Duty on wooden goods and others.	
	In skins or leather .....	Duty on leather goods and others.	
	In fabrics .....	Duty on fabrics according to the kind of fabric.	

TABLE A—Continued.

No.	Articles.	New tariff.	Old tariff.
	WORK, IN VARIOUS SUBSTANCES.	Per 100 kilos.	Per 100 kilos.
547	India-rubber and gutta-percha goods:		
	Pure or mixed .....	20. 00	
	Applications on stuffs in pieces, or other materials.	100. 00	
	In elastic fabrics .....	200. 00	
	Shoes and boots .....	60. 00	
	Made up garments .....	120. 00	
	Felts:		
548	For lining .....	25. 00	
549	For carpets and shoe soles .....	35. 00	
550	For machinery and pianos .....	250. 00	
551	For other purposes .....	35. 00	
	Felt cloth in pure wool for furniture, clothing, and boots and shoes.	Duty on cloth.	
	Hats, felt:		24. 00 to 240. 00
552	Untrimmed ..... per piece..	0. 40	
	Trimmed ..... do.....	0. 75	
553	Wool ..... do.....	0. 35	
554	Silk ..... do.....	1. 20	
555	Coral, cut, unset .....	Exempted.	
	Goods, meerschaum (with or without cases):		
556	Real .....	200. 00	
	False .....	100. 00	
557	Strips of whalebone, cut and prepared .....	12. 00	
	Cork, worked .....		
558	Cork, 50 millimeters long and over .....	30. 00	
	The same, under 50 millimeters long .....	20. 00	
	The same, otherwise .....	5. 00	
	WORKS, IN VARIOUS SUBSTANCES.		
560	Scientific instruments and apparatus:		
	Instruments, optical, calculating, observing, and precision.	Exempt.	12 % a. v.
561	Instruments, surgical .....	Exempt.	
562	Instruments, chemical, for laboratory .....	Exempt.	36 % a. v.
563	Telescopes, magnifying glasses, opera glasses, &c.	150. 00	
	Tabletterie in ivory and shell:		
564	Combs .....	625. 00	
565	Billiard balls .....	625. 00	
566	Piano keys .....	625. 00	
567	Cigar cases, and other goods .....	1, 250. 00	480. 00 to 600. 00.
568	Tabletterie in bone, horn, wood, hard india-rubber, ivory, or false shell.	190. 00	
569	Fans and hand screens in ivory, tortoise shell, or nacre.	1, 250. 00	
	The same in other materials .....	300. 00	
570	Brushes, common, on wood, having vegetable fibers or whalebone.	37. 50	
	The same with bristles or horse hair .....	75. 00	
	Brushes, fine, on bone, ivory, or metal .....	125. 00	
571	Buttons, porcelaine, jet, or glass, without setting.	20. 00	
	Buttons, pierced (for pantaloons), in metal, alloy, papier maché, or cast iron.	50. 00	
	Buttons in glass set, molded horn, corozo, buffalo horn, gilt metal, silvered, plated, oxydised, covered with stuff, or other material.	150. 00	120. 00 to 240. 000
	Buttons in mother-of-pearl, ivory, or shell .....	350. 00	
572	Toys .....	60. 00	96. 00
573	Chemical or lucifer matches imported by permission of the minister of finance for account of the "Société concessionnaire du monopole":		
	In wood .....	12. 00	
	In other material .....	20. 00	
	Chemical matches for private account .....	Prohibited.	Prohibited.
574	Human hair .....	Exempt.	
575	Works for fashions .....	Exempt.	Exempt.
576	Artificial flowers .....	Exempt.	
	Umbrellas and parasols:		
577	Cotton ..... per piece..	0. 25	
	Alpaca ..... do.....	0. 50	
	Silk ..... do.....	1. 25	0. 90 to 2. 40
578	Products, composed of materials subject to various duties, not specifically set down in the tariff in this form.	The duty on that portion of the mixture bearing the heaviest dues, except when such portion can be easily separated, or when such portion merely constitutes an accessory to the whole.	
579	Objects for collection, not in commerce .....	Exempt.	

TABLE B.  
EXPORT TARIFF.

No.	Articles.	New tariff.
580	Thoroughbred dogs exported by the land frontier .....	<i>Per 100 kilos.</i>
581	Books, infringing on copyright .....	Prohibited.
583	All other merchandise .....	Prohibited. Free.

TABLE C.  
DISCRIMINATING DUTIES ON EXTRA EUROPEAN PRODUCTS IMPORTED FROM ANY  
EUROPEAN COUNTRY.  
[Duties in francs and centimes.]

584	Sugar of all kinds .....	3. 00
585	Coffee in the berry .....	10. 00
586	Cocoa in the berry .....	20. 00
587	Cloves .....	40. 00
588	Cannel and cassia lignea .....	40. 00
589	Pepper and piment .....	40. 00
590	Amoms and cardamomes .....	10. 00
591	Vanilla .....	10. 00
592	Tea .....	60. 00
593	Tobacco:	
	Leaf or slab .....	6. 00
	Manufactured ..	8. 00
594	Balsams .....	6. 00
596	Roots, herbs, leaves, flowers, and medicinal barks .....	5. 00
597	Medicinal fruits .....	6. 00
598	Sponges .....	5. 00
599	Tortoise shell .....	6. 00
600	Mother-of-pearl, sawed and clear of crust .....	6. 00
601	Guano .....	1. 80
602	Mineral oils and essences .....	5. 00
603	Borax, crude, half refined, and refined .....	5. 00
604	Cochineal .....	12. 00
605	Lac, in dye or trochisques .....	6. 00
606	Indigo and its components .....	25. 00
607	Fish glue .....	5. 00
608	Silk fabrics .....	100. 00
609	Wool, raw, Australian and the Cape .....	Exempt.
610	Cotton, Indian, raw .....	Exempt.
611	Jute, aloes, phormium tenax, abaca, cocoa fibers and those of other vegetables, except cotton, crude, harled, twisted or in twists, combed or in yarn, for matting.	Exempt.
612	Tobacco for use; also sanitary .....	Exempt.
612½	Plumbago from Ceylon .....	Exempt.
613	Porcelain from China and Japan .....	30. 00
614	Enamels, cloisonnés .....	50. 00
615	Bronzes .....	40. 00
616	Mats and matting .....	5. 00
617	Furniture .....	30. 00
618 }	Nutmeg and mace in the shell .....	40. 00
618 }	Nutmeg and mace not in shell .....	50. 00
619	All other merchandise .....	8. 60

TABLE D.  
DISCRIMINATING DUTIES LEVIED ON PRODUCTS OF EUROPEAN ORIGIN IMPORTED  
FROM OTHER COUNTRIES THAN THAT OF THEIR PRODUCTION.  
[Duties in francs and centimes.]

620	Skins and hides, raw .....	3. 00
621	Wool in masses .....	3. 60
622	Horse hair, raw, prepared, or curled .....	3. 60
623	Fat and oil, other than fish oil, and skin waste .....	2. 00
624	Wax, crude .....	2. 00
625	Bones and cattle-hoofs .....	2. 00
626	Horns of cattle, crude .....	2. 00
627	Rice in grain or husk .....	1. 80
628	Semoules in paste, Italian paste .....	2. 40
629	Green anis .....	2. 00
630	Oil seeds and fruits .....	2. 00

TABLE D.—Continued.

No.	Articles.	New tariff.
		Per 100 kilos.
631	Rosins, native .....	1. 00
632	Oils, pure, fixed, not mentioned .....	1. 00
633	Roots, herbs, leaves, flowers, and medicinal barks .....	3. 00
634	Cork, crude .....	1. 00
635	Box-wood in logs or sawed more than 2 decimeters thick .....	1. 00
636	Dye woods, ground .....	3. 00
637	Seeds, hard, for carving .....	3. 60
638	Rushes and reeds, crude .....	Exempt.
639	Cotton .....	3. 00
	The same not ginned .....	0. 75
640	Mineral oil and essences .....	5. 00
641	Potash .....	2. 40
642	Tartar crude .....	2. 40
643	Medicinal fruits .....	3. 00
644	Sponges .....	5. 00
645	Nitrate of potash and soda .....	2. 40
646	Common woods .....	1. 00
647	Leather parings .....	Exempt.

TABLE E.

RULINGS ON PRODUCTS IMPORTED FROM THE FRENCH COLONIES AND POSSESSIONS.

COLONIAL PRODUCTS.	
Sugars.....	General tariff duties
Syrups and <i>bon-bons</i> .....	
Preserves and fruits preserved in sugar or honey.....	
Cocoa.....	
Chocolate .....	
Cocos, ground .....	
Coffee in berries or roasted, pepper, pimento, cloves, cannell, cassia lignea, amomes and cardamomes, nutmeg, mace, and vanilla.	
COLONIAL PRODUCTS NOT SPECIFIED IN THE FOREGOING.	
Products of Senegal and its dependencies:	
Oils: palm, cocoa, touloucouma, and illipe .....	Exempt.
Woods for building, cabinet work, or perfumed.....	Exempt.
Marine salt.....	Exempt.
Other products.....	General tariff duties.
Products of other colonies or possessions .....	Exempt.
Foreign products imported from Algeria after being nationalized by the payment of dues prescribed by the metropolitan tariff.	Exempt.
Foreign products imported from Algeria after payment of special dues.	Payment of the difference between the Algerian tariff and the metropolitan tariff.
The same, imported from Algeria, having had free entry in Algeria, or arriving in bond or per transhipment, and foreign products from other colonies or possessions.	Duties of the general tariff.

NOTE.—All prohibitions and restrictions established by the general tariff, either in the public interest or consequent upon the monopoly, are applicable to imports from the French Colonies and Possessions, whether said imports be of colonial or foreign products.

Approved for annexation to the law regulating the general customs-house tariff adopted by the Senate and Chamber of Deputies at Paris, May 7, 1831.

JULES GRÉVY,  
President of the Republic.

P. TERARD,  
Minister of Commerce and Agriculture.

THE NEW FRENCH CUSTOMS TARIFF ON SILK AND SILK MANUFACTURES.

REPORT BY CONSUL PEIXOTTO, OF LYONS.

I have the honor to inclose herewith a table showing the new general customs tariff of France relating to the silk industry, as adopted by the French Chambers and awaiting only the promulgation by the government to become law.\*

I have arranged the table so as to show the difference between the existing and new tariffs.

The advantages which the countries having treaties of commerce with France now enjoy will be noted in comparing the conventional with the general tariff.

For cotton, iron, and other manufactures the general tariff is almost or very nearly *prohibitive* for us, and this leads me to urge once more, in view of the increasing importance of our export trade, the adoption of a commercial treaty between the two countries.

BENJAMIN F. PEIXOTTO,  
Consul.

UNITED STATES CONSULATE,  
Lyons, April 28, 1881.

Statement showing new French customs tariff on silk and silk manufactures.

[Customs duties in France per 100 kilograms.]

	Actual general tariff.	Actual conventional tariff.	New general tariff.
Silks in cocoons, raw silks, or thrown, dyed, sewing, embroidery, or other silks.	Free .....	Free .....	Free.
Silk waste in mass .....	Free .....	Free .....	Free.
Comb waste silk .....	10.40 francs ...	10 francs .....	10 francs.
Thread of waste silk (fleuret), raw, bleached, azured, or dyed: Single threads measuring per kilogram— 80,000 meters or less.....	78 francs .....	75 francs .....	93 francs.
Over 80,000 meters .....	124.80 francs ..	120 francs.....	149 francs.
Twisted threads.....	.....	Same duties as single threads.	Duties of single thread increased by 30 per cent.
Bourette threads, threads of waste silk: Single threads measuring per kilogram— 30,000 meters or less.....	26 francs.....	26 francs.....	31 francs.
Over 30,000 meters .....	.....	Same duty as spun bourette.	31 francs.
Twisted threads .....	.....	Same duties as spun bourette.	Duties as above increased by 8 per. cent.
Tissues, foulards, crapes, tulles, hosiery.	288 francs....	} Free .....	Free.
Trimmings and laces of pure silk.....	*1,747.20 francs		
Tissues for hosiery and trimmings of waste.	254.59 francs ..		
Silk, pure raw, bleached, dyed, or printed.	†998.40 francs.	} 200 francs.....	200 francs.
Tissues of bourette for furniture weighing over 250 grams per square meter.	.....	Same duties as the waste silk tissues.	186 francs.
Tissues mixed with waste silk .....	.....	Same regulation as pure silk tissues.	Same regulation as pure waste silk tissues.

\* The new tariff was promulgated May 8 (see page 67), and these rates are now the law. Consul Peixotto has consolidated the several classes of silk and silk goods, all of which will be found in regular order of the new tariff, on pages 69, 82, and 85.—NOTE BY THE DEPARTMENT.

	Actual general tariff.	Actual conventional tariff.	New general tariff.
Silk tissues or waste silk tissues mixed with other textile materials.	.....do .....	.....do .....	Do.
Silk or waste silk dominating in weight.	1,622.40 to ‡ 2,121.60 f's.	300 francs.....	372 francs.
Tissues, trimmings, and laces of silk or waste:			
Fine.....	{ 1,248 to 2,946 francs.	{ 1,200 francs .....	1,488 francs.
Half fine.....			
Silk with gold or silver, false.....	§ Prohibited ..	350 francs.....	434 francs.
Pure silk or waste silk ribbons mixed with other textile materials, silk or waste silk dominating in weight:			
Velvet.....	{ 998.40 francs.	{ 500 francs.....	620 francs.
Others.....			
		{ 400 francs.....	496 francs.

\* With the exception of laces, which pay 18 fr. 72 per cent. ad valorem, of tulle which is prohibited, foulards de l'Inde, and silk tissues (others than crapes) which are free to direct importation from countries out of Europe.

† Tissues façon cachemires of waste silk are prohibited.

‡ These duties are those of tissues mixed with thread. Silk tissues or waste silk tissues mixed with other textile materials follow the regulation as pure silk, except those mixed with cotton, which are prohibited.

§ With the exception of laces and trimmings with false gold or silver, which are admitted, the former at a duty of 3,120 fr., and the latter at a duty of 374.40 fr. or 998.40, according to their value.

## THE CONSUMPTION OF WORKED SILKS IN EUROPE.

REPORT BY CONSUL PEIXOTTO, OF LYONS, FRANCE.

The consumption of worked silks in Europe (trams and organsins) amounted for the year 1880 to within 50,000 kilograms of that consumed in 1879. The total consumption for 1880, 7,208,724 kilograms, for 1879 it was 7,255,669 kilograms, and for 1878, 7,021,649 kilograms.

Divided among the countries of Europe I find the consumption to have been as follows for the years above mentioned:

Countries.	1878.	1879.	1880.
	<i>Kilograms.</i>	<i>Kilograms.</i>	<i>Kilograms.</i>
France.....	3,866,509	3,211,056	3,293,492
Italy.....	2,151,253	2,279,465	2,374,004
Switzerland.....	801,269	908,130	784,737
Germany.....	563,070	626,062	622,288
Austria.....	91,664	94,244	95,614
England.....	47,884	36,712	38,589
Total.....	7,021,649	7,255,669	7,208,724

No account has been taken in the foregoing of raw silks (greyes), which were, in fact, more largely consumed. Thus it may safely be considered that the entire consumption of silk has exceeded that of the previous mentioned years.

It is extremely difficult to arrive at exact figures from the fact that European silk industry, once confined to but few countries, now extends to nearly all on the continent. Aside from the great silk centers of Lyons, St. Etienne, Crefeld, Elberfeld, Zurich, and Basle, there exists considerable industry in this article at Paris, Como, Turin, Vienna, Berlin, Moscow, Macelesfield, Coventry, &c., while Roubaix, Amiens, and other great cotton and woolen manufacturing districts employ silk very largely.

The mixture of cotton with silk, which has taken place so largely of late years, especially at Lyons, St. Etienne, Crefeld, Elberfeld, Basle, &c., has not, as is generally supposed, materially decreased the consumption of silk; in fact, cotton and other materials, while they have been added to silk in combination of new tissnes, have not by any means taken its place. This is shown by the report of the European condition houses which, while not entirely exhibiting the total consumption, reflect nevertheless the general movement. The quantities of silk conditioned for the first eight years have been as follows:

	Kilograms.
1873 .....	6,500,993
1874 .....	6,984,407
1875 .....	8,176,420
1876 .....	9,440,695
1877 .....	5,773,116
1878 .....	7,021,649
1879 .....	7,255,669
1880 .....	7,208,724
Yearly average.....	7,295,209

The conclusion derived from this table shows that after all the consumption of silk in Europe has remained about stationary. Paradoxical, then, as it may appear, the use of cotton has rather augmented the consumption of silk, in affording manufacturers a material for admixture which has enabled them to meet the wants of trade for such stuffs at low prices, which, but for this expedient to other textiles in combination, they would have been seriously embarrassed to supply.

I beg to inclose a table giving the movement of worked silks, trams, and organsins in the silk condition houses of Europe.

BENJAMIN F. PEIXOTTO,

UNITED STATES CONSULATE,

Consul.

Lyons, April 25, 1881.

*Movement of worked silks, trams, and organzines, in the silk conditions of Europe.*

Conditions.	1878.	1879.	1880.
	<i>Kilograms.</i>	<i>Kilograms.</i>	<i>Kilograms.</i>
Lyons* .....	2,145,153	2,051,443	2,207,096
St. Etienne.....	600,159	640,543	568,845
Aubenas .....	113,685	116,671	113,459
Avignon .....	171,902	134,724	131,616
Nimes.....	3,315	2,379	2,243
Privas.....	46,157	24,586	21,168
Paris.....	189,729	187,495	205,919
Valence.....	16,320	29,539	26,010
Montélimar .....	20,094	23,726	17,136
Crefeld.....	395,838	436,293	434,091
Elberfeld.....	167,232	189,769	188,197
Zurich .....	566,813	633,281	543,998
Basle.....	234,456	274,849	240,739
Vienna.....	91,664	94,244	95,614
Milan .....	1,458,750	1,602,810	1,642,720
Turin .....	381,838	456,745	445,599
Bergamo .....	59,455	57,823	41,849
Lecco .....	123,975	119,910	106,602
Como.....	110,023	126,314	123,838
Florence .....	339	230	1,671
Udine.....	7,365	6,855	6,570
Brescia .....	2,188	782	368
Genoa.....	7,720	7,996	4,787
London.....	47,884	36,712	38,589
Total.....	7,021,649	7,255,669	7,208,724

\* Marseilles kept no register of worked silks.

## THE PORT OF ST. NAZAIRE.

*REPORT BY MR. SUTTON, CONSULAR AGENT.*

The port of St. Nazaire, situated at the mouth of the river Loire, was, previous to 1857, a small village, inhabited chiefly by pilots and fishermen. At the present time it has become one of the principal ports of France.

### THE DOCKS.

The port consists of a floating dock, 25 acres in extent, with an entrance 82 feet in width, and a depth of 26 feet over the sills. It has been constructed for the admission of the largest class of steamers, and has 4,940 linear feet of quay. It is well supplied with all the modern appliances for loading and discharging cargoes in connection with the railways.

A new dock, called the "Penhouët" dock, was inaugurated on the 8th instant. It is 55 acres in extent, and opens out of the old dock by a lock 420 feet in length by 82 in width, with a depth of 26 feet over the sills. This dock, which is 3,550 feet in length and 747 feet in width, is the largest in France. It was commenced in 1869, and has cost 15,000,000 francs; 1,200,000 cubic meters of clay, and 500,000 cubic meters of rock have been excavated, and 300,000 meters of stone, 150,000 meters of sand, and 37,000,000 kilograms of cement have been used in the construction of the works, which have given daily employment to 1,500 men. Adjoining the "Penhouët Basin" are three graving docks capable of receiving the largest ships. The dock gates, bridges, &c., are worked by hydraulic power. The roadstead off the port is commodious and safe.

### STEAM NAVIGATION.

St. Nazaire is the headquarters of the Transatlantic Company's steamers, which sail on the 6th of each month for Martinique, Guadeloupe, La Guayra, St. Martin, Colon, and the ports of the Pacific, and on the 21st of every month for Santander, St. Thomas, Havana, Vera Cruz, Guadeloupe, Martinique, Porto Rico, Santiago (Cuba), and Jamaica, and twice monthly for Liverpool.

The Thames and Loire Company's steamers leave on Wednesdays and Saturdays for London.

### MANUFACTURES.

A company has been formed, with a capital of 8,000,000 francs, for the purpose of erecting works for the manufacture of iron and steel. Their furnaces and workshops, which are far advanced toward completion, will cover 400,000 square meters of ground.

### POPULATION.

The arrondissement of St. Nazaire contains 35 parishes and a population of 155,992 souls. St. Nazaire, the chief town, has 20,000 inhabitants.

## DOCK DUES.

	Franca.
Sanitary fees (vessels from ports in Europe), per ton .....	0. 10
Sanitary fees (vessels from ports out of Europe), per ton .....	15
Passport, per vessel .....	2. 30
Hawser dues (vessels of 100 tons and upward), per ton .....	3 <sup>1</sup> / <sub>2</sub>
Haulers (sailing vessels), per man .....	1. 00
Haulers (steamers) per man .....	50
Fire guard, per day .....	3. 00
Boat hire, per hour .....	2. 00

## BROKERAGE.

	Franca.
Entry at custom house (inwards) .....	12. 00
Entry at custom house (outwards) .....	12. 00
Sea report .....	6. 00
Brokerage per ton of cargo shipped .....	50
Brokerage per ton of cargo landed .....	50

## LIGHTERAGE.

From the docks to Nantes, or *vice versa*, from 2 francs to 2 francs 50 centimes, according to the nature of the merchandise.

*Customs receipts at St. Nazaire, 1876 to 1880.*

	Franca.
1876 .....	3, 014, 348
1877 .....	2, 781, 608
1878 .....	2, 804, 642
1879 .....	2, 938, 676
1880 .....	3, 195, 265

H. P. SUTTON,  
*Agent.*

UNITED STATES CONSULAR AGENCY,  
*St. Nazaire, May 14, 1881.*

## GERMAN COINAGE.

*REPORT BY CONSUL-GENERAL LEE, OF FRANKFORT-ON-THE-MAIN.*

The annual report of the chamber of commerce of this city, for the year 1880, has been published and received at this office within the present week.

Among the leading topics discussed in the report is that of bimetalism, particularly as that subject applies to and affects the commercial interests of the German Empire.

The propriety of perfecting and permanently establishing the single gold standard of values now in vogue, and also the merits of the converse policy of adopting a double standard consisting of silver and gold together are treated at considerable length.

The report takes strong and unequivocal ground in favor of maintaining a policy favoring a standard based upon gold only, and looking to the complete adoption and perfection of such a standard. Various arguments are given to show why such a policy is best for Germany, one of the principal considerations adduced being that heavy losses are constantly suffered by German dealers in their trade with all countries where a silver standard exists by reason of the fluctuations in the prices of silver. This is particularly the case, it is said, as to the trade with China, East India, and Japan.

In the importation of the single article of indigo, of which Germany receives about 15,000 centners per annum, the annual losses to dealers, by reason of the fluctuations in the silver exchange, are estimated at not less than \$300,000. A like state of affairs prevails as to the importations of silk, tea, spices, drugs, ethereal oils, cotton, rice, jute, sugar, dye-stuffs, skins, tin, copper, and many other articles.

These facts are cited as illustrating the disadvantages to commerce of a fluctuating standard, and as showing the necessity of removing all existing uncertainty as to what the standard of Germany shall be. By reason of that uncertainty German importers are obliged to make their exchanges payable in London, where the gold standard is permanent and fixed, rather than in Berlin where that standard is yet sufficiently imperfect, and its maintenance sufficiently uncertain as to make a difference of from  $\frac{1}{2}$  to 1 per cent. in favor of London in the price of the exchange.

The losses suffered by German commerce under this state of things are believed to be far greater than would have accrued had the government continued its withdrawals and sales of silver, even at the depressed prices.

Concluding this subject the report remarks :

Solidity and stability in the nature of the coinage, such as our laws have sought since the year 1871 to establish, are of such importance to every country and all conditions, and are so indispensable to the general welfare that they should be guarded with immovable firmness by reasonable men of every condition and of all political parties.

The complete and perfect establishment of the gold standard is unfortunately not yet attained, inasmuch as a portion of the silver formerly current (*i. e.*, legal tender), has not yet been withdrawn. To secure this result at the earliest date, and with the least possible loss and shock, all reasonable efforts should be made. In the present condition of the silver market, and the uncertainty of the coinage policy of the United States, it is not possible to fix a definite time for completing the work. It should be considered, however, that loss on the silver held for sale does not result from the mere act of sale, but accrues primarily from the market depreciation of silver, including the silver coin not yet withdrawn.

The losses on sales of silver are far outweighed by the consideration that the more the stock of current silver (legal tender) shall be reduced, the more the imperial bank can protect itself, by raising its rate of discount, against an export of gold.

We hold illusory that a vote favorable to bimetalism is to be expected from the next Imperial Parliament. If here and there a member may err by reason of the continual attacks made upon the existing coinage system, by deceptive representations as to the nature and consequences of the double standard, and by the prospects of a new international money conference, there is no doubt but that calm reflection will secure from the majority of the delegates a just judgment as to the existing coinage system, and prevent the adoption of hasty innovations therein.

The report then specifically approves the adoption of resolutions by the Imperial Handelstag that the overthrow of the existing coinage law would work infinite damage to the economical interests of the empire, that such legislative action should be taken as shall remove all doubt as to the maintenance of the single gold standard, and that should the existing clamor for increase in the silver coinage continue, there can be no objection to a concession to that clamor in the form of an additional coinage of one and two mark pieces. It only remains to be said that the views thus set forth are in accord, as the report states, with the overwhelming public sentiment of this commercial district as ascertained by the Chamber of Commerce through painstaking inquiry, and as already represented from time to time in the course of these dispatches.

ALFRED E. LEE,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Frankfort on the Main, April 30, 1881.*

## SUBSIDIES TO GERMAN SHIPPING.

LETTER AND MEMORIAL

OF

PRINCE BISMARCK TO THE GERMAN PARLIAMENT.

TRANSMITTED BY CONSUL-GENERAL KREISMANN, OF BERLIN.

I have the honor to bring to the notice of the Department a memorial that the chancellor of this empire, Prince Bismarck, has recently caused to be prepared and submitted to the Reichstag on the subject of "State Bounties and Subsidies to Shipping." The occasion for said memorial was found in the provisions of the "French Merchant Marine Act," passed January 29, 1881.

Apart from the fact that manifestations of the great German Chancellor on questions of public policy are always deserving of attention, it is regarded as of all the more interest to submit this document together with a full and thoroughly prepared translation, in view of the circumstance that the true interests of American shipping find in the present head of the Department an unquestioned advocate, reference being made in the memorial itself, as will be perceived, to the views of and measures proposed by the Secretary of State in his memorable speech, on the subject, delivered in the Senate during its last session.

H. KREISMANN,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Berlin, May, 1881.*

## LETTER OF PRINCE BISMARCK.

[Translation.]

BERLIN, *April 6, 1881.*

A new "Merchant Shipping Act," the object of which is to afford the State aid to the French merchant shipping, was promulgated in France on the 29th January, 1881, and is calculated to exercise an influence on the shipping trade of other countries and in particular that of Germany.

The undersigned therefore takes occasion to lay a Memorial relative to this law before the German Parliament for its consideration.

The Imperial Chancellor:  
VON BISMARCK.

## MEMORIAL OF PRINCE BISMARCK

FOR

*Assistance to German Steamships, based upon a review of the French Mercantile Marine Act, of the 29th of January, 1881.*

The following is the text of the new French Mercantile Marine Act, passed on the 29th of January, 1881, which proceeded from parliamentary initiative:

"ARTICLE 1. Exemption from pilotage is accorded to all sailing ships not exceeding 80 tons, and to steamers up to 100 tons when they are habitually engaged in navigating from port to port and in the mouths of rivers. However, on the demand of the Chamber of Commerce, and after inquiry in the usual form, public administrative regulations shall determine the improvements to be introduced into the present regulations in the interest of navigation.

"ART. 2. For over-sea vessels, the inspection prescribed by article 225 of the commercial code, for a fresh cargo shipped in France shall not be obligatory unless more than six months have elapsed since the previous inspection, or the ship has suffered damage.

"ART. 3. The deeds or minutes showing a transfer in the ownership of ships, total or partial, will only be liable to payment of the fixed registration duty of 58 cents.

Article 5, paragraph 2, of the law of the 28th of February, 1872, is abrogated so far as it is contrary to the present clause.

"ART. 4. As compensation for the charges which the customs tariff imposes on the builders of sea-going vessels, they are allowed the following bounties:

"Per ton, gross measurement:

For iron or steel vessels .....	\$11 58
For wooden vessels of 200 tons and above .....	3 86
For wooden vessels of less than 200 tons .....	1 93
For mixed vessels .....	7 72

"For engines put on board steam-vessels, and auxiliary apparatus, such as steam-pumps, accessories to motive power, windlasses, ventilators, worked mechanically, as well as for boilers and pipes, per 100 kilograms, \$2.32.

"Ships, wood bordered, of which the framework and beams are wholly of iron or steel, shall be considered as mixed vessels.

"ART. 5. Any transformation of a ship having the result of increasing the measurement, gives right to a bounty calculated on the above tariff, according to the number of additional tons in the measurement. The bounty is accorded for the engines and auxiliary apparatus put on board the ship after completion. When the boilers are changed the owner of the ship is allowed a compensation of \$1.54 per 100 kilos for the weight of the new boilers, without the tubes when of French make.

"ART. 6. The bounties, fixed by articles 4 and 5, are paid after the delivery of the French register, by the receiver of customs, at the place of construction, or the place nearest to it.

"ART. 7. The system of import of materials free of duty established in execution of article 1, of the law of May 19, 1866, and article 2, of the law of March 17, 1879, is abolished.

"ART. 8. With respect to ships on the stocks at the moment of the promulgation of the present law, builders will only receive the bounties fixed by article 4, subject to deduction of the customs duties fixed by the conventional tariffs relative to foreign materials of which they may have obtained the free import for ship-building.

"ART. 9. As compensation for the charges imposed on merchant shipping for the recruitment and service of the navy, there is accorded for a period of ten years from the promulgation of the present law, a bounty on navigation to French sailing ships and steamers. This bounty applies exclusively to over-sea navigation. It is fixed per ton net measurement, and per 1,000 miles run at 29 cents for ships, new from the yard, and decreasing annually; 1½ cents for wooden vessels; 1½ cents for mixed vessels; 1 cent for iron vessels.

"The bounty is increased 15 per cent. for ships built in France on plans previously approved of by the navy department. The number of miles run is calculated between the point of departure and the point of arrival, measured in a direct maritime line. In case of war, trading ships may be requisitioned by the State. The bounty is not given to ships engaged in the greater or lesser fisheries, to the subsidized lines, or pleasure navigation.

"ART. 10. Every captain of a ship receiving one of the bounties fixed by article 9 of the present law shall be bound to carry gratuitously the letter bags delivered by or addressed to the post-office in accordance with the Consular decrees of 19 Germinal, A. X. If an agent of the post-office accompanies the mails he also shall be carried gratis.

"ART. 11. A public administrative regulation, containing especially a table of distances from port to port, will determine the application of the present law."

This act is the result of many years' discussion in and out of the French Parliament with regard to the most efficacious means of assisting the French merchant shipping and assuring its prosperity in its competition with the flags of other nations.

The several committees, which have successively occupied themselves with the matter, have, upon exhaustive inquiry into everything bearing upon the shipping trade, decided that a whole series of privileges are needed for the French merchant service.

In addition to the privileges ultimately embodied in the law, the following points were, among others, proposed, viz:

The trade tax for commercial shipping trade was to be submitted to a revision, and in certain cases materially reduced.

The existing legal provisions imposing upon ship-owners the obligation of caring for and bringing home French sailors who may fall sick and be impoverished in foreign ports, were to be so altered as to make that care and repatriation incumbent upon the State.

The system of mortgages on ships was to be reformed for the better security and more profitable engagement of capital seeking investment in ship's mortgages.

Cheap credit was to be made accessible to all enterprises in the way of ship-building and the shipping trade by the State eventually assuming an interest guarantee to the amount of 2,000,000 francs.

Surtaxes to be levied on indirect imports, however, may be made the principal subject of consideration, as specially calculated to make the direct imports of foreign products profitable and attractive to French trade, and thus likely to stimulate French navigation in foreign waters. It was agreed on all sides that the differential duties should not be abolished, but considerably extended beyond their present limits.

The whole of these points were left unconsidered in the above act, partly because they were already to be regulated in another way, as for instance the differential duties in the customs tariff laws already under parliamentary consideration, and partly because it was thought more expedient to let them stand over to be specially dealt with. There was, however, according to the unanimous opinion expressed by all parties of both houses of Parliament a determination on no account to let these questions drop.

The act itself culminates in Articles 4 and 9, relating to bounties on ship-building and navigation.

The bounty to ship-builders is defined in Article 4 as intended for equalization of the burdens which the French tariff imposes on the builders of sea-going vessels.

When in the years 1860 to 1870 the differential duty on the flag was abolished in France, a compensation was accorded to French owners to enable them to compete better with other flags by means of affording them facilities in constructing whatever vessels they might need as cheaply as possible.

For this reason in the first instance the duty of 37 cents per ton levied upon ships imported and naturalized was abolished, and in the second place the import, duty free, of the necessary ship-building materials into France, or repayment in proportion to the import duties on such material, was to be made. This repayment was effected by means of *acquits à caution*—customs discharge certificate, and, in accordance with the peculiarity of this system, did not yield a full counter value for the respective customs duties. It was therefore considered necessary to remedy matters so that the duty should be calculated upon an average of what it would amount to on ship-building materials for the construction of a ship's ton in France according to the several descriptions of vessels, and that a bounty should be secured to the ship-builder to that amount. It was argued that in view of the difference in the state of affairs in France and that of other maritime countries, especially England, it was absolutely necessary that a compensation bounty be accorded to the French ship-builder in this form, so as to enable him to compete with foreign builders. The provisions of Article 4 of the act answer this purpose.

With regard to the extent of the bounties allowed, they are, according to the calculations made in the course of the parliamentary debates, equal to a protection of 12 per cent. This, among others, is shown in the case of a newly-launched steamer at Marseilles. Said steamer had a gross measurement of 1,100 tons; the machinery on board a weight of 150 tons. This gives an allowance of \$12,738 for the vessel and of \$3,474 for the machinery; in all, \$16,212. The cost of the construction of this steamer is set down at \$144,750.

It may also be gathered from the statements made on the part of the government in the course of the parliamentary debates that the measure is something more than "a compensation for the charges which the customs tariff imposes on the builder of sea-going vessels," as specified in Article 4. Thus, in the sitting of March 11, 1879, the minister for agriculture and commerce distinctly denied that the State received a compensation for the payments imposed upon it by Article 4, inasmuch as the duties which according to the law hitherto in force raised on materials imported for ship-building and which were remitted would not fall to the exchequer. "That is a delusion, a mistake" he continues, "for it is certain that from the day when the remission of the duty ceases, no more ship-building materials will be imported into France. The ship-yards will of course get their supplies from the nearest industrial sources. Thus our home industrial establishments will get the benefit of these orders, and I am glad of this for my country's sake. The State will derive no revenue, but will, on the contrary out of its own means, allow French ship-builders the difference in price between ship-building materials in France and those of abroad." It is therefore in reality a bounty.

No misgivings were expressed from any one side in the French Parliament as to this kind of State aid to private industry.

In this one question it was unanimously agreed by all parties represented in the French Parliament, both by the advocates for free trade and for protection, that ship-building in France must be protected against the competitors of other more favored countries, and that the provisions proposed in Article 4 of the act were to be regarded as the proper means for the purpose.

The charges upon the French exchequer through the bounties on ship-building would, according to a competent authority's calculations, amount to about as follows:

For maintenance of the French merchant service at the strength it had, for instance, on the 31st of December, 1879, with a sailing tonnage of 676,894 and steam tonnage of 255,959, a fresh supply of 52,000 tons (sailing) and 18,000 tons (steam) would

be required annually, according to an average arrived at by long experience, of one-thirteenth for sailing vessels and one-twentieth for steam-vessels. About a third of the French ships are regularly built abroad. The remaining two-thirds would impose a charge on the French exchequer of \$309,649.20. To this must be added the ships necessary for *increasing* the French tonnage, which is the real object of the law. The last returns showed that the French merchant service employed 831 sailing vessels, with a tonnage of 327,800, and 81 steamers, with 120,500 tons, on long voyages. The law has less tendency to stimulate an increase of sailing vessels than that of steamships.

*Sailing vessels* are therefore not included in considering the anticipated augmentation of the French merchant service, while the annual increase in steamers for the next few years is estimated at 56,000 tons gross measurement. If two-thirds of these are built in France, this would yield an annual ship-building bounty of \$546,402.30, to which must be added the above \$309,649.20 for maintenance of strength, making in all \$855,955 for the next few years. The merchant shipping will then increase at a slower rate and only on a pace with the general improvement of the French shipping trade, which would lead to a considerable decrease of state aid. This diminution of state aid, however, would be balanced by the increased expenditure necessary for the maintenance and renewal of the tonnage thus augmented.

Under these circumstances the amount of State aid required for ship-building would, after a lapse of a few years, prove to be about \$386,000 annually.

Article 9 of the law makes provision for the allowance of *navigation bounties*. The bounty is fixed per ton net measurement and per thousand miles run at 29 cents for ships new from the yard, and diminishing year by year by a small percentage, until it ceases after twenty years in the case of wooden vessels and after thirty years in that of iron vessels.

The bounty is increased 15 per cent. for steamers built on plans *approved of by the navy department*.

A further stimulus is given to the French ship-builder by the provision that *foreign-built ships registered under the French flag* shall only be entitled to half the bounty accorded to those of French construction. The bounty only applies to vessels in the over-sea trade, and not where they are employed in the already otherwise privileged *fisheries* or belong to *subsidized mail lines*.

The *coastwise shipping*, according to the framing of the law, so far as the *petty, or home coast trade*, i. e., the trade from one port to another, falls under this denomination, being solely reserved to the French flag, is considered sufficiently protected. On the other hand the so-called *great coast trade*, which, according to the French terminology, comprises the shipping trade in European waters, and consequently is in the nature of things just as exposed to the competition of other nations as the over-sea trade, remains for the present unprotected. Steps in this direction, however, have been suspended until the effect of the bounties accorded to the over-sea trade shall have been ascertained.

The *charge on the French exchequer* arising from the payment of bounties on navigation as imposed by Article 9 is estimated by a competent authority at \$14,397,800 for the periods of ten years provided for in the law. This sum would be distributed over the several years as follows:

In one year .....	\$799,020
In two years .....	1,146,420
In three years.....	1,493,820
In four years.....	1,513,120
In five years .....	1,532,420
In six years.....	1,551,720
In seven years .....	1,571,020
In eight years.....	1,590,320
In nine years.....	1,609,620
In ten years.....	1,628,920

Total in ten years..... 14,397,800

This estimate, as far as the tonnage and the estimated increase of the French merchant shipping is concerned, is based upon the same premises as those taken in calculating the funds which the French Government would require to defray the ship-building bounties, and to which we have already referred. For the rest, it is calculated that a steamer runs some 36,000 miles a year and a sailing vessel about 12,000 miles.

With regard to the financial results accruing to the owners of vessels from these navigation bounties the following remarks from the journal (the *Soir*) may be quoted as well as the extract below from a communication addressed by a deputation of *British* ship-owners to the British foreign office on the subject of the law.

The *Soir*, in its issue of 21st of February, 1881, says:

"From the debates in the Chamber of Deputies upon the bounties bill it appears that the distance which a steamer, built upon the newest principles, can travel in the course of a year may be roughly set down at 40,000 miles.

"A steamer of the class of the large ocean vessels at present used, with a net measurement of about 2,700 or 3,000 tons actual burden, will accordingly receive for a thousand miles run \$781.65, namely, 2,700 times 1.50 francs.

If the vessel does forty times the distance, the bounty would amount to \$31,266. If the vessel is constructed upon plans previously approved by the navy department, it will receive \$41,688 bounty for the above number of miles run. The cost of construction of a ship of this kind will, it is presumed, not amount to \$347,400. Accordingly the government bounty amounts to 9 per cent. in the first instance and to more than 10 per cent. on the cost price of the vessel in the second case. Under these circumstances if the receipts for freight only cover the expense of the voyage, the ship yields an interest of 9 to 10 per cent. on the invested capital.

In the memorial presented by *English ship-owners*, the navigation bounties are discussed as follows:

"A French steamer of 2,600 tons, a regular liner for instance to the La Plata, would be entitled to a bounty in round numbers of £2,000 for the voyage, and as such a vessel can do four voyages a year and nine voyages in the course of two years, the vessel would receive bounties to the amount of £8,000 to £9,000 sterling a year, equal to 13 to 15 per cent. of the ship's value, which may be estimated at £60,000.

"The bounty is not confined to the French shipping trade with France, but is accorded to *all French ships*, even though they only ply between *foreign ports*. Under similar conditions the English owners are equal to any competition. They cannot, however, hope to compete successfully if on the other side 13 to 15 per cent. of the working capital are refunded. A French competitor can accept freights which merely cover expenses of the voyage, and yet, thanks to government bounties, get handsome profit on his capital. This kind of business would prove ruinous to the Englishman, while leaving a handsome margin to the Frenchman.

"It is no exaggeration to assert that before the expiration of a year after the promulgation of the French bounties bill, the French merchant service will receive a considerable augmentation, and that it will share with England the transport trade of the Atlantic, as also the trade with South America, East India, Australia, and other British colonies. We will not depict the consequences of this. The bounties are said to constitute a compensation for certain burdens and duties imposed upon the respective circles. The recipients, however, view them in the right light, viz, that of State aid which will enable the French owners speedily to establish and develop a great merchant navy so that the shipping transport trade may be carried on to a larger extent than hitherto by French vessels, and in order to create for France a powerful navy which may prove of effective service in time of war."

That the suppositions and calculations from which the above-quoted opinions proceed are universally shared in French shipping circles, is shown by the zeal with which people in France are hastening to utilize the privileges of the new act.

According to all reports received, an extraordinarily increased activity has already manifested itself in the ship-yards of important French ports. In like manner, everything is being done on all sides to establish new lines or to enlarge and extend the existing ones. A further consequence of the new law is the establishment of a credit institute (the *Crédit foncier maritime de France*) with a capital of \$4,825,000, whose object is to give a new impetus to ship-building and the shipping trade by granting loans to be amortized on ship mortgages and by other means.

The system of navigation bounties formed the chief point of the entire debate upon the law, and it was on this question that the exponents of the various theories as to the economic duties of the state most distinctly assumed opposite sides. To be sure there was a unanimous understanding on all sides that something must be done for the French Merchant Marine, and that this must exceed what is intended to be done by Article 4 of the law in the way of bounties on ship-building. In all of these arguments reference is made to the necessity of the revival of the French Merchant Marine for and by France.

There is a desire to prevent any diminution of the 400,000,000 to 500,000,000 of francs profit on freights which the transport trade of the French merchant service annually yields, and points to the example of England, which with a shipping of 8,000,000 tons and with a profit from freights of about two milliards, can look calmly at the deficits in the trade balance.

It is further complained that the French flag is inadequately represented in distant waters, and it is admitted that both French industry and commerce from and with France suffer in consequence, for the "Merchant Service," they say, is the handmaid of all industries, of agriculture and commerce. On the day the freight trade is given over to foreigners a mortal blow will be dealt to all the industries of the country. It would be an anomaly, from a national stand-point, to cede the transport trade to industrial rivals. In choosing these to export home products people expose themselves

to all kinds of foul play, not only in competition, but also to adulteration of goods. Protests are made against considering the question of the merchant service only from the merchant's point of view, or from the egoistic point of view of the shipping agent, who applies to a foreign flag for the chance of an ephemeral profit. Members were reminded that it was the merchant service and its captains who established offices in foreign countries, and who created profitable relations between France and those countries by their establishing shipping trades at home on the strength of the connections they had formed abroad. The shipping trade, it was argued, was not merely a transport trade, for, the master of a vessel when abroad, if unable to get a return freight otherwise, will eventually undertake a commercial transaction on his own account. These masters of ships were the best commercial travelers for the over-sea trade.

It was impossible to regain foreign markets once lost by the aid of foreign agents and negotiations. Direct connections must be maintained with distant lands in order that French influence, French commerce, and French products gain a firm footing by the aid of the French flag. For this reason it is intended to assist the French merchant service, and also with a view of expediting the transition from sailing to steam navigation so as to place it on an equal footing with such other flags as are further advanced in this respect.

The only material difference of opinion was, as to whether the proposed measures of ship bounties would answer the desired purpose. Even those opposing the navigation bounties do not hesitate to offer compensation for this in the shape of bounties for ship-building to exceed those provided by Article 4 of the law. The following remarks, passed by two leading deputies during the debate, which considerably contributed toward carrying the measure, may be quoted as characteristic of the narrow limits in which the opposition moved. Both deputies are free traders. The one who advocated navigation bounties said, "I am a radical and a free trader, but as occasion requires I yield in political or economic matters, because it is our duty to care for the requirements of France and her interests." And the other member who rejects navigation bounties on principle says, "disputes about theories and doctrines are all very well for books, periodicals, and newspapers, but matters are conducted otherwise in parliament where members agree and consult with one another. Each one contributes something of his own, and the result is that some point is reached, which perhaps may not satisfy all, but yet is as much as should be expected from the State."

It is true there was no lack of objections on this occasion from the representatives of the extreme advocates of non-interference in economic questions against any kind of State aid. It was pointed out that if this system of subsidizing private enterprises were commenced, others would follow suit, and this might prove ruinous to the public exchequer. The principle of free trade, it was claimed, is opposed to such bounties; that the spirit of enterprise of French ship-owners would thereby be paralyzed, the system of routine promoted, and that if France is desirous of and able to maintain a powerful mercantile navy the same should be ascertained without resorting to artificial means.

The French Parliament was not impressed by these and similar utterances, more particularly as regards the Senate, as was shown when the bill came to the vote, for the latter chamber almost unanimously passed the measure, including the article on navigation bounties.

Objections to the bill, emanating from the conflicting interests of certain French seaports, had also been raised. The report of the parliamentary commission, appointed to prepare the draught of the bill, in dealing with these objections, which were subsequently withdrawn when the matter came on for debate, expressed itself as follows:

"There are convictions in which reason alone does not determine the case; and among the most powerful of these stands foremost the spirit of *local interest*, with its train of traditions, oppositions, and suppositions. This is the party whose few representatives still oppose us. Their position is one of consequence, and justly so for they are the Chambers of Commerce of Marseilles and Bordeaux. \* \* \* We have shown, in the course of our discussions, how much the trade and commerce of a nation are identical with its rule of the sea, and how they generally fall off, and decline together. \* \* \* *Free forms* and *free ports* have furnished more than one example in support of this, and whenever history has shown them to us as powerful, wealthy, and honored, so often have they sought and found their purpose in a maritime trade carried on by foreigners who stood in their pay."

"The port of Antwerp was extended and finished, and was to become the greatest harbor of the north, and the rendezvous of the whole world; all flags were to fly there, with the single exception of that of Belgium. What weight would the voice of the Antwerp Chamber of Commerce have under such circumstances, if it were to be taken in the matter of a *national Merchant Marine*. If Belgium had again to deal with

this question, the Belgium Chambers would take their opinions from another source, and they would consider the opinion of Antwerp as no longer sufficiently impartial.

"It is not a similar question in the case of the mighty commonwealth of Marseilles. The undisputed queen of the great basin of the Mediterranean by tradition, possession, wealth, and capacity, this city sees its preponderance, and may grow in proportion as the merchant navies of the second order prove more powerless in the same sphere. The mercantile navies of Italy, Greece, and the Levant, bring her their tributes of subjection, and it is this very subjection which makes them compulsory frequenters of this extensive emporium. We may assert, without fear of contradiction, that both in Marseilles and Antwerp local interests have gained the upper hand over the national spirit.

"Nor is Bordeaux, with its Chamber of Commerce, a friend of shipping bounties. Once upon a time this port of the Gironde shone in full splendor in the time of the colonial charter, when Duplers and his followers founded French India. When our colonial power was lost, the hidden wealth of the vine-productive soil was revealed. New sources of wealth presented themselves, from the abundance of which everything was exclusively to be drawn. A certain and permanent market was wanted, and hence the extravagantly cultivated free trade ideas, which adopted the theory of productive capacity on a national scale, and in consequence of this accepted as a matter of course the downfall of that extensive shipping trade which had once been the glory of the city and the wealth of its citizens.

"Was the patriotism of Bordeaux happily inspired in laying such a stress on its pet ideas? Did it not, half unconsciously, follow those more speculative and practical ideas of the Gironde which are as directly opposed to local interests as to national ones? In matters of national economy, to which the merchant service in France belongs, not as a mere fraction but as its most perfect exponent, *all interests are identical*, with the reserve that the one interest shall not stop, divert, and check the other currents. Hence, local interests are a dangerous weapon which will always recoil on those who are rash enough to make use of such."

The question of the effect of the law in *international relations* was the subject of animated discussion in the French Chambers. On the one side it was pointed out that subsidies to the French flag in the form of bounties were *contradictory to international treaties* on the equality of other flags in French ports. This system would lead to diplomatic difficulties and *reprisals*; other countries would not calmly look on, until French ships, with the assistance of bounties accorded to them, contested in foreign ports with the native vessels for freight. This law with its navigation bounties, especially with its limited period of ten years, would not prevent England underbidding French freight rates. The French flag would at the expiration of this period be ruined, and this would appear to be easy on the part of a wealthy and powerful trade as opposed to a feeble and ailing one, &c.

On the other side it was insisted that no right of treaty and no international principle was opposed to the State aid granted to the French flag in the form of bounties. All that was agreed, in international treaties, was that foreign ships should go in and out of French ports upon the same terms of the customs legislation and international right as French vessels; nothing more had been promised than that no other and heavier dues should be levied on foreign ships than on French vessels. The only justifiable reprisals which could be made abroad would be the *introduction of similar bounties* to those of France. The danger, however, in this respect was not great, for other nations had not always such flourishing budgets as France, and in particular there was no need to be afraid that Germany or Italy would propose any such measures to their parliaments.

As far as that is concerned, all that could be urged against the bounties proposed by this law were equally applicable to the mail subsidies. No objection had, however, been raised from any quarter to the latter; on the contrary, the same system had been pursued in all other countries. Indeed, other countries, as a rule, had taken the lead of France in the path she had just entered in manifesting a national interest in the mercantile navy, by assisting it with sundry privileges.

On the part of the government this question of *international right* had already been considered when discussing the above-mentioned question of extending the navigation bounties, already recorded, to the over-sea trade and to the "larger coasting trade" (European coasting). It was argued that if France at the present moment were to allow bounties to vessels plying in the greater coasting trade in European waters, the results would be the impossibility of entering into negotiations with a view to treaties with European powers. No complications could arise from granting bounties to ships sailing to distant waters, when France had no navigation or commercial treaties. But this was not the case in European waters. In the latter case France would be unable to maintain the existing treaties or conclude new ones. For the other countries could not view these bounties in the same light as the subsidies to the postal services, for these latter were granted in virtue of special compacts, which sometimes imposed very onerous terms.

How important a link the *postal subsidies* form in the chain of privileges granted by France in the national interest to its merchant service is shown by the enormous sum of about \$4,600,000, which is annually expended by the state for the purpose. These subsidies are distributed as follows :

Line to Corsica.....	\$72, 375
Mediterranean to Brazil, La Plate.....	845, 776
New York and Antilles.....	1, 922, 010
To India and China.....	1, 654, 593
To Algiers and Tunis.....	95, 245
Total.....	4, 589, 999

The foundation to a *further subsidized French steam line* has been laid simultaneously with the promulgation of the law for granting general privileges to the merchant service. In consideration of the circumstance that the French flag is not adequately represented in Australian waters, that the share of the French trade to and from Australia does not assume dimensions corresponding to the importance of France, that new markets were to be opened there to French industry, and that the present moment was a most favorable one, as *France had gained a footing in the exhibition of Sydney and Melbourne* ; in view of all these circumstances it was determined to open a *subsidized line of steamers from France to Australia*, with a communication to New Caledonia. This line would, for the present, arrange for thirteen voyages there and back, per annum, and receive for this a subsidy to the amount of \$636,900, it being reserved later on to double the voyages with a corresponding increase of subsidies. The following paragraph from the general motives of the bill regulating the allowance of subsidies deserves mentioning :

“ England already has two steamship lines to Australia ; Hamburg will also shortly open one. The competition is becoming general, and France claims a direct share in this promising enterprise. *In order to yield practical results these enterprises cannot dispense with government aid*, and this has always been afforded in a productive manner, as soon as it was a question of paving the way for our traffic in distant markets. England has given the example of using *mail steamers as the pioneers for the creation or expansion of commercial relations.*”

Some figures were discussed in alluding to the effects of the opening of subsidized French lines. Thus, for instance, it was argued that the French trade with Brazil, the Argentine Republic, and Uruguay only amounted to \$38,600,000 before the opening of the subsidized steam lines from Bordeaux to these countries, whereas it had afterwards increased by 237 per cent., and accordingly reached \$91,675,000. The entire French trade with Eastern Asia did not exceed \$15,721,000 before the opening of the postal service to India and China ; of this \$12,931,000 was with British India, and only \$1,833,500 with China, Cochin China, and Oceanica. In 1879 this trade reached the sum of \$77,200,000, and Lyons had become the emporium in Europe for Chinese and Japanese silks.

In the discussion regarding other countries, arising from the debates on the French bill, England occupies the first place, as an example of the interest and steps taken there for the protection of her merchant service, and also with regard to the manner in which the bounties about to be introduced in France would be judged from the standpoint of international law.

In respect to this latter, mention was made in the debates that voices had already been raised in England claiming that these bounties were considered as a *violation of the right to national treatment due to the English flag*, and that the case would lead to measures of reprisal. In the meanwhile, according to a correspondence between the British foreign office and the British ambassador in Paris, submitted to the English Parliament, the British Government has taken a position in view of this portion of the question. It appears that, in the opinion of the English Crown law officers, these bounties do not in precise terms constitute a violation of the stipulations of the commercial treaty between France and England. At the same time they are considered as contrary to the spirit and intention of such treaties, and, it is added, this view will be borne in mind in any new commercial negotiations with France.

With regard to the other part of the question, as to how far England has already progressed in advance of France in granting privileges to its own mercantile navy, a special stress is laid upon one point in the Parliamentary debates ; namely, members were reminded that in England the equipment of harbors with the necessary buildings and improvements of every kind was not carried out by government and out of public moneys, as in France, but by private companies or independent corporations, who accordingly had a right to levy harbor dues on their part for the interest and paying off of the invested capital. In these harbor dues, which amount to the important sum of from \$19,300,000 to \$22,195,000 a year, and represent about 48 cents on every ton moving in English harbors, or on more than 40,000,000 tons, there is the strange arrangement that *English vessels enjoyed an advantage over French ones*, as the former did not contribute to these dues in equal proportion to the latter. This was done

either by the exemption of harbor dues being limited to native vessels belonging to certain English ports, or by means of a subscription, which in the nature of things was only accorded to English vessels having regular intercourse with the port, but which under certain conditions was extended even to English ships in general, to the exclusion of foreign flags.

Remonstrances had been raised, it was said, against this *inequality of treatment towards the French flag*, but so far to no purpose. Remedy could only be obtained by the British Government taking the harbor dues in its own hands, for at present the management and levying of these dues depends upon private companies or corporations. With regard to the steps in this respect which had been taken and contemplated on a former occasion, nothing had as yet been done. In this it may be seen that what with the considerably lower dues levied indiscriminately in French ports on French and English ships, English navigation met with a far more favorable treatment in France than *vice versa*.

Attention was also drawn to the *large postal subsidies* which Great Britain grants to mail steamers. The total amount of public moneys which England has already applied in this respect in subsidizing her shipping and trade in the course of years is set down at over £40,000,000 sterling. It is mentioned by way of example that on the opening of the Suez Canal the subsidized French mail boats from the Mediterranean proved to be too dangerous competitors for the English line to India; the English subsidy was on this account at once increased by £100,000.

The following are the several amounts set down in the way of postal subsidies for the fiscal year 1879-'80, according to the report of the English Postmaster-General:

For the line to Brazil, La Plate to Chili, from Southampton .....	£4,878
Liverpool.....	5,656
East Indies, China, and Japan.....	417,325
Aden, Zanzibar .....	10,000
Table Bay, Zanzibar.....	20,000
United States of America .....	57,447
Halifax, Bermuda, and St. Thomas.....	17,500
The Pacific.....	5,706
The West Indies.....	85,188
Do.....	991
Liverpool and Puerto Cabello, Tampico and Sta. Martha.....	1,132
Belize and Jamaica.....	3,500
Belize and New Orleans.....	3,080
Other amounts .....	9,253
Total amount.....	£641,656

The considerable subsidies allowed by the English Colonies mail lines are not included in this statement. According to official reports from Sydney they amount, for example, to £207,500 from the Australian colonies alone.

With regard to the United States of America, special reference was made to the legal practice in force there since 1872, according to which an annual government duty of up to \$10 per ton may be allowed for the construction of large ships for the over-sea trade for five years in succession. The compensation paid by the United States of America in one of the last year's budget for transatlantic postal service amounted to \$196,684. In the meanwhile an amendment has been adopted in the Committee on Post-Offices of the Senate of the United States appropriating \$1,000,000 for the opening of American steam mail lines.\*

Further comprehensive government measures may be expected for the protection and improvement of the American over-sea mercantile navy, according to the programme which was developed by Mr. Blaine in January last in the Senate at Washington, who has in the meanwhile been appointed Secretary of State for the United States.

In Italy the promulgation of the French mercantile marine law has been the special occasion of revising the question of measures for the improvement of the Italian merchant service. With a view to meeting the difference of treatment resulting from the French law for the Italian shipping in the competition for trade, the draft of a law of Parliamentary initiative was introduced in the sitting of the Chamber of Deputies of February 2, 1881. This proposed measure, adhering strictly to the French law, and agreeing essentially with regard to the amount of the bounties provided by it, demanded also in Italy government aid to ship-building and navigation. The necessity under the existing circumstances of having recourse to such measures was also acknowledged by the "free-trade" side of the house, it being presumed that endeavors would be previously made by diplomatic intervention on the part of the interested powers, against any such violation of international treaties, if not of the precise terms, still of their spirit and intention. This matter, however, was not considered as ripe for discussion in every direction. It was decided by the Chamber of

\* Of which only about \$25,000 was paid to United States ships, or about one-half paid by Germany. The amendment referred to by Prince Bismarck was defeated February 14th last.

Deputies that further steps would depend upon the investigation of a commission of inquiry, which is to report upon the present state of the Italian merchant service, and suggest the fittest and most efficacious means for securing its future, and promoting its prosperity.

This commission of inquiry will consist of five senators, five deputies, and five members to be nominated by royal decree. The work of this commission, and the report thereon, are to be completed within four months, and submitted to the government, who will take prompt action thereon as may be necessary, and in accordance with obligations assumed.

Italy, according to the official reports of 1879, expends \$1,593,214, on postal subsidies.

The Austro-Hungarian Empire, Belgium, and Holland, respectively, expend \$1,034,844, \$157,436, and \$63,117 on similar subsidies.

Germany pays in the over-sea trade to the participating German steam lines a sum in proportion to the weight of the parcels forwarded. At present these allowances amount to \$47,000 in round numbers.

*It is deserving of serious consideration whether under the circumstances as given, German shipping and German commerce can hope for further prosperous development as against the competition of other nations aided by public funds and assistance.*

## IRON SHIP BUILDING IN GERMANY.

REPORT BY CONSUL LINCOLN, OF STETTIN.

I have the honor to invite your attention to the progress achieved by a German company in the building of iron steamships.

A great industry has been developing itself at this place during the last quarter of a century, of which comparatively little is generally known. Reference is made to the works of the "Vulcan," located on the banks of the Oder, near this city, engaged in the building of iron steamships, as well as in the manufacture of railroad locomotives. The last-named branch of industry is at present quite idle, owing to a lack of demand, while the other is in a flourishing condition.

The company owns a large iron sectional dock, marine railways, &c., and is fully equipped for the building and repairing of the largest-sized vessels.

Some idea of the extent of the company's business may be derived from a knowledge of the fact that at present it furnishes employment to more than 2,500 hands and will shortly increase the number of the same to about 3,000. Less than twenty-five years ago this now immense concern started in a single workshop and has gradually developed its present immense business.

The success of this establishment in creating such a great industry in spite of English competition should afford great encouragement to similar occupations in our own land.

The government has contributed largely to the success of the same both directly and indirectly.

Up to the time of going into operation of the new tariff law all materials intended for ship-building were imported free of duty. The new law exempts from all duty such materials as enter into the construction, repairs, or equipment of sea-going vessels. The government has fostered the growth of this industry also by contracting here for many of its war vessels.

However, in spite of such aid many difficulties inherent in the nature of the business, as well as in the soil itself, had to be met with which similar industries in our country are not forced to contend. Here, for example, it is necessary to bring the coal and iron from long distances, and many of the immense machine tools have been imported from England at great cost. Pitch pine imported from America is used quite

commonly for planking. The engineering skill and mechanical ingenuity have been greatly stimulated if not supplied by English artisans. At the time of my visit to the establishment a large double-turretted iron-clad constructed for the Imperial Government, and intended for purposes of coast defense, was receiving its finishing touches. Not so far advanced in construction were two steam corvettes ordered by the government and also one of the same style as well as a torpedo boat for the Chinese navy.

A hurried inspection of the same by one unversed in such matters did not, of course, admit of anything more than the forming of a general opinion as to the merits of the workmanship, &c. However, the inferiority of finish and inattention to nicety of detail could not escape the eye of a lynx accustomed to the handiwork of the American mechanic. It seemed to me a great pity that our manufacturers should allow the Chinese authorities to come such a distance for such comparatively inferior work as can be afforded here.

GEORGE F. LINCOLN.

UNITED STATES CONSULATE,  
Stettin, 1881.

## STEAM COMMUNICATION BETWEEN STETTIN AND NEW YORK.

*REPORT BY CONSUL LINCOLN.*

I have the honor to report that the pioneer steamer of the recently established "Stettiner Lloyd," the *Katie*, made on the 9th instant her first departure from this port, bound for New York, with 257 emigrants on board.

Another vessel is supposed to be in process of construction for this line, which it is said will be completed in season to commence running the next autumn.

Of the success of this enterprise many doubts are expressed here, because of the difficulty of obtaining, in ordinary times, cargo for the outward voyage, inasmuch as the chief articles of export from this place to the United States consist of scrap iron, old rails, and empty petroleum barrels.

The projectors of the scheme apparently rely upon the ever-increasing tide of emigration to freight the ship to New York. Judging from the inquiries made at this office, and from information derived from the newspapers, the numbers of those seeking and desiring to seek homes in our land is decidedly on the increase. I am pleased to be able to further record that many of the persons leaving this country, at the present time, are possessed of some considerable means, and appear to be of a class likely to become a desirable addition to our population.

The authorities seem to be somewhat alarmed at the unprecedented extent of the present exodus. In consequence thereof the president of the Province of Posen has recently issued a mandate to the police officials to keep a strict watch over the movements of all emigrant agents.

Nearly all of the persons at present leaving this territory for the United States are expedited via Hamburg to Liverpool, or from here to Hull by steamer and there transhipped. It would therefore appear, relying upon present indications, that the new line has a good prospect, for a time at least, of obtaining a remunerative outward freight.

If steam communication becomes an established fact our merchants

can take advantage of it by sending to this market among other articles our apples and oysters. The success already met with in the introduction of the first-named product has been testified to by my colleagues at various posts in this country. Inquiries made here give me reason to think that the experiment would achieve like good results at this point. I can only repeat the caution already expressed by others that great care is required in the packing to insure their arriving in good condition. In regard to the last-named article I would say, that, in my opinion, if proper care be taken to select the best varieties the introduction will prove a profitable venture. The experiment has been tried, as I am informed, at Hamburg, but with what degree of success is not known.

Here the English bivalve is in great demand at certain seasons, and the price paid for the same averages 75 cents per dozen. To secure favorable competition our dealers must send the small selected oyster, the "Blue Point," or a similar growth. It will be useless, in my judgment, to attempt the introduction of our large natives with any idea of achieving immediate success.

GEO. F. LINCOLN,  
*Consul.*

UNITED STATES CONSULATE,  
*Stettin, April 26, 1881.*

## THE TRICHINA SCARE AND AMERICAN PORK IN GERMANY.

*REPORT BY CONSUL POTTER, OF OREFELD.*

There still continues to be felt among dealers in and consumers of American pork, hams and bacon, in this part of Germany, much anxiety and alarm growing out of rumors which have recently been circulated through the public press regarding the presence of trichina in such articles of food.

With a view of ascertaining to what extent the trade in American meats has been injured by such rumors I addressed inquiries to some of the principal dealers on the continent, and they have promptly furnished the desired information. In some localities an extensive falling off in the demand has occurred, and in others—notably in Belgium—the trade does not appear to have been much affected. All, however, agree that under a system of proper inspection the demand for American meats of this description would soon attain proportions larger than have heretofore been known.

The following letters received from two prominent firms dealing in American meats express the average sentiments prevailing among dealers regarding the effects of the recent rumors above referred to.

### THE SCARE IN BELGIUM.

*Messrs. Isenbart & Co. to Consul Potter.*

ANTWERP, *March 15, 1881.*

SIR: In reply to your inquiries of the 14th instant we beg to say that our business in salted American bacon has not suffered in a direct way through the unfavorable reports which have been of late circulating regarding trichina. Indirectly, we have felt the effects of the order prohibiting the importation of these articles into France. The transactions in bacon were, for a time, particularly disturbed everywhere, and this could not have been otherwise under the circumstances.

As far as we know uneasiness on account of trichina has not been felt of late years; and the prohibition order of the French Government, according to explanations given

by the minister of the interior, in the Corps Legislatif, is a temporary measure only. It seems that, even in France, the public does not approve of this prohibitory order of the government, and the people do not appear to be frightened on account of the rumors concerning trichina. It is to be hoped that this measure will soon be revoked.

If the government would issue a decree requiring butchers and dealers to have their hog products microscopically examined by public sworn examiners, it would do all that is necessary to avert dangers arising from trichinosis.

During the last eight years we have almost daily sent American bacon to Germany, France, and Holland, as well as to various places in Belgium; and during all this time we have heard of only one case (Düsseldorf) where trichina had been discovered in American hams sold by us.

Here in Belgium no one thinks of trichina. No law exists to enforce microscopical examinations, and yet not a case of trichinosis has occurred. Bacon and hams in this country are eaten only after being thoroughly cooked, and this precaution ought to be taken everywhere, and then danger is not to be apprehended.

Believe me, sir, yours, respectfully,

ISENBART & CO.

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*Messrs. Brand & Co. to Consul Potter.*

ANTWERP, *March* 16, 1881.

DEAR SIR: We have received your favor of the 14th instant. Since the French Government has prohibited the import into France of American hog products our market has been unsettled in the anticipation that other governments would take similar action, and consequently very little business has been done since with America. The demand for the articles in question up to the time of the publication of the French law was very fair, and we might say larger than in former years for the same time. Since then, or rather since the commencement of Lent, naturally the consumption of these goods has fallen off considerably. However this is nothing unusual. All have every reason to believe that this ridiculous French decree will be repealed within a few weeks, and that a thorough inspection of American meats by order of the government will be instituted. It is too early to draw any conclusions concerning the recent bad reports of trichina. Our personal belief is, however, that things will go on as before; for the examination of American pork, for instance, in Germany, has so far proven that the occurrence of trichina has been most rare.

The alarming and false report of the British consul in Philadelphia, stating that large numbers of hogs in America are affected by "hog cholera," will tend to injure the trade more than the trichina scare, as the consumers of American meats in Europe are liable to believe such stories, not knowing, as we do, that those reports are started by speculators to manipulate the markets. We are pleased to learn that the United States Government has taken up the matter and that the false statements of the British consul will be contradicted.

We are glad to say that *generally* the American meats imported this year have been of excellent quality. Hams and shoulders are, however, frequently, during the warm season, spoiled in transit, and it is of the greatest importance that the American shippers of such goods should use the utmost care in exporting only *thoroughly cured meat* of the best quality, and *well packed*. Often during the summer, and till late in the fall, there have been large quantities of bad hams—almost unfit to use—which are sold at very low prices, and pass into consumption. Such goods, we fear, may have been the principal moving cause of the French Government in prohibiting the importation and sale of American pork.

Yours, very respectfully,

BRAND & CO.

All of which is respectfully submitted.

J. S. POTTER,  
• Consul.

UNITED STATES CONSULATE,  
*Crefeld, April, 1881.*

8 JULY

**STATE OF LABOR IN GERMANY.***REPORT OF CONSUL POTTER, OF CREFELD.*

Since the 1st day of January, 1881, there has been no change for the better in the depressed condition of manufactures and trade, which are lifeless to a degree unusual and almost unprecedented in this consular district. It is quite certain that the demands from the United States for the various silk and silk and cotton fabrics produced in this consular district are much below that of any corresponding previous period during the last five or six years.

Manufacturers have, therefore, as a matter of necessity, largely reduced their productions, and thousands of weavers, and other operatives, have been deprived of employment, and are suffering consequent deprivations and hardships. It is in silk and chappe velvets that the production has been most extensively curtailed. These goods are generally woven in country towns in the vicinity of Crefeld, on hand-loom. In these villages more than 50 per cent., it is said, of these looms are now idle, and there appears to be no immediate prospect of renewed activity in this class of manufactures. The present would, therefore, seem to be an opportune moment for American merchants to make purchases of this class of goods.

The rate of wages paid, at this date, are in many cases so low that operatives find it difficult to procure the most meager necessities of life.

Particular attention is invited to the exhibit made in the following tables, of the hours of labor, and the rate of wages paid to mechanics, operatives, and laborers, in certain branches of industry in different localities in Rhenish Prussia. They also show the wholesale and retail prices prevailing in the same localities during the year 1880, of leading staple articles of food.

In the facts here developed may be discovered the causes for the preparations which are now being made, in almost every district of Germany, for extensive emigration to the United States. It may be proper here to remark that the people preparing for emigration appear to embrace the best class of mechanics, operatives, and farmers.

Table showing the daily hours of labor and the wages paid per week to mechanics and laborers in certain branches of industry in different localities in Germany.

Names of localities.	Date.	Building mechanics and laborers.						Carpenters and joiners.	Locksmiths.		Tailors.		Boot and shoe makers.		
		Plasterers.		Journeyman mechanics.		Laborers.			Daily working hours.	Weekly wages.	Daily working hours.	Weekly wages.	Daily working hours.	Weekly wages.	
		Daily working hours.	Weekly wages.	Daily working hours.	Weekly wages.	Daily working hours.	Weekly wages.								
Crefeld.....	1880. July 1	11	\$3 43	11	\$5 00	11	\$4 00	11	\$3 57 to 4 76	11	\$4 29	12	\$1 43	12	\$1 43
Dusseldorf.....	Oct. 1	9	5 36	9	4 00	9	2 86	11	3 57 to 4 76	11	4 29	12	\$1 43	12	\$1 43
Barmen.....	July 1	11	5 71	11	5 00	11	3 80	11	3 57	11	3 57	11	3 57	11	3 57
Elberfeld.....	Oct. 1	11	5 71	11	4 28	11	3 33	11	2 86	9.5	3 00	9.5	2 86	9.5	3 57
Bochum.....	July 1	9	4 76	9	3 57	9	3 09	11	4 28	11	5 00	11	3 57	11	3 57
Kurnick, Prussia.....	Oct. 1	10.5	4 98	10.5	4 17	10.5	3 33	10.5	3 33 to 4 05	11	3 57	13	\$1 55	13	3 57
Metz.....	July 1	10	4 28 to 4 76	10	3 57 to 4 05	10	2 62 to 2 86	10.5	3 33 to 4 05	11	3 83 to 3 80	13	\$1 43 to 1 67	13	\$2 38 to 2 85
	Oct. 1	11	4 76	11	3 71	11	2 86	11	3 57	12	\$1 20	12	1 84	12	\$1 84
	July 1	11	4 76	11	3 71	11	2 86	11	3 57	12	\$1 20	12	4 84	12	\$1 84
	Oct. 1	12	2 86	12	2 14	12	1 79	14	72	14	\$1 72	14	\$1 72	14	\$1 72
	Oct. 1	11	2 86	11	2 14	11	1 79	11	72	11	\$1 84	12	\$1 72	12	\$1 62
	Oct. 1	10	7 06	10	5 71	10	3 51	10	4 29	10	4 29	10	5 00	10	5 00

\* With board.

† With board and lodging.

‡ With lodging.

Table showing the wholesale and retail prices, prevailing in certain localities in Germany during the year 1880, of staple articles of food.

Names of localities.	Date.	Bread.		Flour.		Butter, per kilogram.	Milk, per liter.	Eggs, per dozen.	Potatoes, per 100 kilograms.	Meat.				Bacon, per kilogram.	Beer, per liter.	Wholesale market prices.			
		Rye, per kilogram.		Rye, per kilogram.	Wheat, per kilogram.					Ox, per kilogram.	Cow, per kilogram.	Pork, per kilogram.	Mutton, per kilogram.			Wheat, per 100 kilo-grams.	Rye, per 100 kilo-grams.	Peas, per 100 kilo-grams.	Potatoes, per 100 kilo-grams.
Crefeld .....	1880. July 1	\$0 04½			\$0 09	\$0 50	\$0 04½	\$0 19	\$1 67	\$0 32½	\$0 28½	\$0 35½	04 28½	\$0 38	\$0 06	\$5 59	\$5 00		\$1 67
	Oct. 1	05			08½	64½	04½	21½	1 43	32½	28½	38	28	40½	06	5 24	4 76		1 67
Dusseldorf.....	July 1	05	07½	09½	09½	50	04½	18	to	33½	28½	42	32	26	to				
	Oct. 1	05	07½	09½	09½	64½	04½	20	2 14	33½	28½	43		45	to				
Barmen.....	July 1	04½	09½	09½	09½	62	04½	18	2 74	28½	19	38	28½	38	07½	5 95	5 36	\$8 56	2 14
	Oct. 1	05½	08	08	08	62	04½	17	1 90	33½	24	38		38	07½	5 12	5 12	6 80	1 90
Elberfeld .....	July 1	04½	09			57	04½	18	2 40	19	19	38		34½	06	5 88	5 15	6 07	1 90
	Oct. 1	05	07½	09½	09½	62	04½	17	1 74	25	21½	33½	21½	40	06	5 23	5 24	to	1 43
Bochum .....	July 1	04½	07½	07½	09	52½	04½	15½	3 40	28½	28½	33½	26	35½	07½	5 47	4 78	7 14	2 42
	Oct. 1	04½	07½	07½	09	57	04½	19	1 71	28½	28½	36	26	38	07½	5 66	4 85	5 60	1 72
Kurnick, Prussia .....	July 1	06				48	06	07	95	21½		24	25½						
	Oct. 1	06	04½	04½	09½	48	06	09½	1 19	26	26	21½	19	35½	02½				
Metz.....	July 1	06½				48	07½	20½	1 19	36	28½	30	34½	38	09½				
	Oct. 1	08	07½	09½	09½	45	04½	04½	1 81	36	26	26	27½	32	06	5 55	4 85	5 00	1 82

1 kilogram = 2½ pounds. 100 kilograms = 220½ pounds. 4½ liters = 1 gallon.

Recently some of the weavers in this consular district, in an apparent state of desperation, sent a petition to the Emperor of Germany upon the subject of the great distress prevailing among them. It is difficult to discover in what way they expected the Emperor could stimulate a demand for textile fabrics, or alter the rate of wages which are governed by the laws of supply and demand. The petition, however, discloses some interesting and rather startling facts concerning the compensation of operatives in the localities referred to. During the five years including 1870 to 1874 the rate of wages paid for weaving a certain quality of chappe velvets ranged from 3 to 3.50 marks per meter, or 66 to 77 cents per yard. At the present date, for weaving the same quality of velvets, only 1.50 marks per meter, or 33 cents per yard, is paid, and it is said that some manufacturers pay only 1 mark per meter, or 22 cents per yard.

Over production is assigned as the cause of the present stagnation in manufactures and trade in this district. Uncertainty as to the articles which will be fashionable and popular during the coming "season," has also had an influence in checking production. Prices are very low, and some goods, such as black satins and black velvets, can only be moved at a sacrifice on the cost of production.

The decrease in shipments from this consular district to the United States has been very large, as compared with the corresponding quarter of 1880.

During the quarter ending March 31 there has been a considerable decrease, as compared with the previous quarter, in the quantity and value of goods passing through the consular agency at Düsseldorf. Prices of most kinds of silk productions are lower, especially in ribbons and trimming materials.

Woolens and Italian cloths are in demand at previous prices. Paintings and other works of art show a very marked decline in price, as well as in the quantity shipped to the United States.

In velvets, plushes, shot silks, and all fashionable articles for female attire, the condition of the market and prices in Düsseldorf are represented by those prevailing at Crefeld.

J. S. POTTER,  
*Consul.*

UNITED STATES CONSULATE,  
*Crefeld, April, 1881.*

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## GERMAN EMIGRATION TO THE UNITED STATES.

*REPORT BY CONSUL WILSON, OF HAMBURG.*

There seems to be no abatement in the German emigration movement. On the contrary, it seems likely to assume even greater proportions during the next few months, or perhaps years.

Having applied to the local authorities for a statement of the number of emigrants who left this port for our country during the first three months of the last year and the first quarter of 1881, ending the 31st ultimo, I am officially informed that in the first three months of 1880 the number reached the, until then, unprecedented figure of 7,707, while for the same quarter of this year there were 24,401 !

The extraordinary exodus now going on seems to be attracting widespread attention not only in Germany and the United States, but in other countries as well.

Having noticed unfavorable criticism in our home newspapers respecting the character, physical condition, &c., of the present emigrants, I beg to state that I have given this matter close attention and am prepared to advance the opinion that the emigrants now going to the United States are an exceptionally fine class, although it must be admitted that a few very bad men, in the persons of German socialists banished from their native country, have also gone to our hospitable shores.

From the officers of the steamships conveying these people, the emigrant commissioners, and others whose business brings them into close contact with this class, as well as from my own personal observation, I learn that the present emigrants from this country to the United States are largely made up of the middle classes and the most hardy and ambitious of the German peasantry. There is evidently a greater percentage of skilled laborers, mechanics, and others of the producing class, such as muscular young men and women accustomed to farm and other outdoor work. Then, again, it is noticeable that there is a larger percentage than usual of scientific men and others of the educated classes, and it is remarked that the emigrants have better outfits than formerly, and scarcely any of them are without some ready cash.

Notwithstanding the tremendous impetus that has been given to emigration during the past year or two, it is reported that tens of thousands of small property-holders are ready and anxious to go, and would emigrate at once could they dispose of their interests here at anything like reasonable figures.

There are many reasons which might be given for this extraordinary movement, prominent among which may be mentioned the military requirements and heavy taxation, the climate, and worn-out condition of the farming lands; and, above all, the official reports coming from the United States showing our marvelous development and brilliant future prospects.

JAMES M. WILSON,  
*Consul.*

UNITED STATES CONSULATE,  
*Hamburg, April, 1881.*

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#### GERMAN EMIGRATION TO THE UNITED STATES.

##### A.

Translation of an article from the *Hamburger Handelsblatt*, of March 18, 1881, accompanying Consul Wilson's report.]

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In conclusion, we cannot refrain from pointing to another very important fact, which is of great direct signification, especially for Germany. The number of emigrants landed in the United States in the year 1878 was 153,207; in the following year the number rose to 250,565, and in 1880 it reached the enormous figure of 586,058! According to other statistics, the average annual earnings of a workman amount to \$625, and one may safely presume that every able-bodied workman contributes every year one-fifth of his earnings to the increase of the national wealth. Taking into consideration the period of time of the full working capacity of the emigrants, according to their age, and considering the much less working capacity of the females, and the cost of raising the children which they bring with them, one may fairly presume that during the last few years not only considerable cash capital is taken to the United States by the emigrants, but that every one of them carries to that country in his labor a capital which may be

estimated at \$1,200. The total value of the labor thus conveyed to the United States during the last five years may therefore be estimated at about \$700,000,000. No wonder that the United States of America do prosper!

But what is it, one must ask, that induces every year these hundreds of thousands to turn their back to their native country in order to seek a new home on the other side of the Atlantic?

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B.

Translation of an article from the *Hamburger Fremden-Blatt*, accompanying Consul Wilson's report.]

The *Flensburg Nachrichten* contains a correspondence from the city of Schleswig to the effect that emigration from that place and vicinity is actually assuming immense and alarming proportions.

"Many who desired to emigrate are detained here, because they cannot dispose of their property, otherwise the number of persons who are sick of the existing state of affairs at home would be much larger. Many fathers with their sons, and a great many more sons alone, leave the country to escape the burden of a three years' military service. These people express the opinion that whoever cannot learn the required drilling and shooting in *two years* must be an idiot, and will not learn it in three years either. For a physically strong man, endowed with only sound sense, the whole affair can be learned in *one year*. This is proved by the volunteers, who not only acquire a thorough military education in one year, but are often promoted to a corporal's or vice-orderly sergeant's rank in that period of time. A two years' service would, in their opinion, be quite sufficient, and would preserve for the country thousands of able-bodied, strong young men, who now turn their strength and fortune to their new home on the other side of the Atlantic."

This is an enormous loss for Germany!

In East Friesland (Hanover) emigration takes hitherto unknown proportions. From the district of Emden, which has a population of 18,000, contracts have already been made for the transportation to the United States of more than 300 persons (adults and children). The emigrants consist exclusively of servants of the best age, and laborers with their families. These are the most industrious and steadiest elements, who are satisfied with a very moderate subsistence. They leave their native soil, hoping to find a better remuneration for their irksome toil.

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## THE GRAND DUCHY OF OLDENBURG.

REPORT ON THE GRAND DUCHY OF OLDENBURG, ITS COMMERCE, AGRICULTURE, AND MANUFACTURES, BY CONSULAR AGENT J. G. GROSS, AT BRAKE-NOR-DENHAMM.

In conformity with the instructions contained in the circular dated July 1, last past, which I had the honor to receive September 11, last, I forward herewith my annual report, not having been aware that any such report was expected from Consular Agents.

*General remarks.*—Before entering into particulars, I would remark that the Grand Duchy of Oldenburg consists of the Duchy of Oldenburg, situated in the northwest part of Germany, between the navigable rivers Weser and Ems, and the principality of Birkenfeld, near Frankfort-on-the-Main, and the principality of Eutin, bordering on the Baltic, near Lubeck. Of these two principalities the former is a district of the United States consulate at Frankfort-on-the-Main, &c.

*Government.*—At the head of the government stands the Grand Duke Peter the First, residing with his family and the prince hereditary in the capital, Oldenburg, situated on the navigable river Hunte, and the seat of the government, which consists of the ministry of the interior,

culture, justice, treasury, and agriculture; the rest of the sovereignty was transferred in 1866 to the central government at Berlin.

Besides these officials there is the chamber of representatives, of about forty members, elected by indirect election from among and by the inhabitants, and renewed every three years; the majority of this chamber consists, as the inhabitants of the grand duchy, of farmers or of those closely linked with them, and therefore the government in general is more favorable to farming than any other pursuit, especially commercial interests, which do not meet with such attention as might be wished. Still the government and grand duke are highly respected and beloved and do all in their power to forward the interest of the inhabitants.

*Area and inhabitants.*—The total area of the Duchy of Oldenburg amounts to about 5,375 square kilometers, one-fifth of which is the most fertile and the very best of marsh, two-fifths are either sand or moor, and the remaining two-fifths either forest or heather. The total number of inhabitants amount to about 300,000, three-quarters of which are of Lutheran confession, the rest either Roman Catholics, Methodists, or Jews.

*Public schools, &c.*—There are four colleges, twelve higher class, so-called citizen schools, two seminaries, one deaf and dumb asylum, combined with an excellent school for the inmates, two insane asylums, and about six hundred elementary schools spread through the country, all of which enjoy the best reputation through the empire, having shown the best results.

*Finances* are in the very best order, showing every year a very fair balance in favor of the treasury. The public debt incurred for the building of railways, public ways, and other public institutions, amounted at the end of the year to about \$8,000,000, but decreasing every year, not to any great amount, but still decreasing.

*Post and telegraphs.*—These institutions depend entirely on the imperial or central government. Both the post as well as the telegraph administration are in the same good condition as throughout the empire, and return a total net revenue of about \$3,000,000.

*Public roads and railways.*—The public roads in former times were exclusively built and maintained by the government, but after the principal lines had been finished, the government only grants one-fifth of the total expenses towards building them; the rest has to be met by the community desirous of extra lines. All the roads are in the most excellent condition, being built, for want of ordinary paving stones, of a peculiar sort of ferruginous small bricks, manufactured here in the duchy; these bricks, by the effect of fire, become nearly as solid as flint stone, and last for a very long period.

Of railways the duchy boasts of about 350 kilometers, all single lined, doing a good trade, notwithstanding that the freights charged on these lines, which are worked with the utmost economy, are lower than in any other part of the empire, much to the benefit of all interested.

*Agricultural.*—As aforesaid, the majority of the inhabitants of the duchy consists of farmers and their dependents, and one would think that from the vicinity of England and Scotland the farming business in general would have risen to the same perfection as in those parts. This is not the case however; the farmers here, with few exceptions, remain in the same state as the farmers of a hundred years ago. They all live and use their soil, of which they are generally proprietors, as their forefathers did, using the same implements and the same method of agriculture. Therefore the importation of newly-invented implements and machinery, with the exception of a very few small articles, such as hay-

forks, rakes, and such articles, remains very insignificant, although I might say that in the whole empire more wealthy farmers than those living in the marshes of Oldenburg do not exist.

Some years ago some of these farmers bought some machinery, such as grass-cutting, reaping, and thrashing machines, but, either owing to their inferior quality or some other reason, they did not come into general use, or they were put aside for want of knowledge or perseverance, or for want of necessary repairs not executable in the vicinity.

The principal occupation of the farmers in the lower marshland consists, as heretofore, in horse and cattle breeding with grazing, whilst in the higher part of the country, where sandy and moor land prevails, corn of all sorts is cultivated, but not to an extent sufficient for the consumption in the province, and so the new tariff, so highly recommended by Prince Bismarck, finds here but little approbation for it by taxing the people higher than any one of them ever expected.

The principal imported cereals consist of wheat, rye, and flour in large quantities, and I am of the opinion that these articles, which now are imported by way of Bremen, from all parts, might as well and better be furnished by the United States, and also fine family flour, but without any adulteration by maize flour, &c., of which I hear many complaints.

The principal agricultural exports are horses, very renowned for their excellent qualities as coach and wagon horses in all parts of the Continent, the export of which number about 5,000 head yearly, bringing good profits to the breeders as well as dealers. Of horned cattle the exports amounted to from 15,000 to 20,000 fat beasts and about 15,000 for breeding purposes. These latter, owing to their excellent milk-giving qualities, are therefore very high in price. Of sheep and pigs the export is also large, but owing to the lack of proper statistics the number of each sort cannot in any approximate way be given. Of other agricultural produce the harvest for last year is estimated to about 180,000 cwt. of wheat, 120,000 cwt. of rye, 300,000 cwt. of barley, 100,000 cwt. of oats, 65,000 cwt. of buckwheat, and about 150,000 cwt. of horse-beans, besides potatoes, turnips, cabbages, &c., the whole produce, with the exception of turnips, cabbages, oats, horse-beans, and barley, being, as aforesaid, not at all sufficient for the consumption of the duchy.

*Manufactures.*—The principal factories are the warp spinnery and power-loom factory at Oldenburg, producing about 16,000 cwt. of yarn and cotton goods; the Hanseatic jute spinnery and weaving factory at Delmenhorst, employing 300 laborers and producing about \$120,000 cloth and yarn; the rope works of I. B. Reiners & Co., at Brake, producing about \$80,000, mostly for exportation; the glass works of Harbess, Schultz & Co., in Oldenburg, doing a very large trade in dark hollow glass, principally for England and Portugal; several cork manufactories, which supply a greater part of the empire with corks of all sorts, some even being imported to England and the United States; but as these exports go by way of Bremen, no amount can be stated here. There are numerous brick-kilns, several iron-foundries and steel-works; particulars thereof I omit, thinking them not interesting enough to be mentioned here.

*Mining.*—Under this head there is nothing to state, as mines do not exist in the duchy.

*Fisheries.*—Only river fishing is practiced here now; arctic whale-fishing and sealing is entirely abandoned, although formerly very productive, owing to the bad results of latter years.

*Forests.*—Although there exist many thousand acres of beech, oak, and fir forests, they are not now very productive, being too young. At

the time of the French occupation of this province in 1809-'13 the forests were almost entirely destroyed and devastated, and consequently the country relies for its timber on Norway, Sweden, the United States, and British North America.

*Commerce.*—Commerce shows for the last six or seven years but little to speak of. Overspeculation and overproduction were given in the first as reasons for the dullness in trade. Through the new tariff, however, no direct proof could be adduced, and as it is not the object of this report to enter on the origin of the dullness of the trade, I let the matter rest.

The trade of the port of Brake, which is a free port, the same as Hamburg and Bremen, was not so much affected by the dullness of times. The privilege of entering any quantity of goods without paying duty or submitting them to control of the custom-house authorities afforded occasion to inland merchants to land their cargoes here, and after assorting or mixing them, enter them in the Zollverien, and re-export such goods as could not find a market inland. The imports consist of timber, boards, coal, rye, wine, petroleum, tobacco, cotton, dyewoods, and flint stone and sundry other articles. The quantities of the articles were not attainable, for, as aforesaid, Brake is a free port, without custom-houses, and therefore no official lists are kept. Besides Brake, there exist in the duchy two other important seaports, namely, Wilhelms-haven, which was established by the Prussian Government at first, but was afterwards transferred to the empire for a dock-yard and depot for the imperial navy in the North Sea, and which up to the present owes its importance to the navy establishments here, together with docks, dry-docks, patent slips, &c., although large enough to accommodate the largest fleet. The town is situated on the left or west bank of the river Jade, which forms here a large bay, and affords a place of refuge with very good anchorage even to the largest iron-clads. The entrance from the North Sea is, however, very intricate, and no vessel should put in here without a good pilot on board.

The town itself, although scarce twenty years ago since the first house was built, is now inhabited by about from 14,000 to 15,000 inhabitants, all more or less dependent on the government institutions and on the imperial navy; besides these establishments there are the barracks for seamen and soldiers, and three very strong forts, which could accommodate more than 30,000 men. The imports by sea into Wilhelmshaven have so far consisted in building material, pitch pine from the United States, teak from the East Indies, rock stones for the fortification, fir timber from Sweden, and cement stone from Holland. There were no other imports of any consequence.

As soon, however, as the large commercial dock, now in the course of construction, is finished, which will be in about two years, Wilhelmshaven will have a brilliant future, not only by favor of the imperial government, but by its favorable situation and vicinity to the North Sea and its railway connections.

Besides Wilhelmshaven there are nearly a dozen small import places on the Jade, but only accessible to coasting vessels bringing lumber from Norway, coals from England, and other commodities from the Weser or Elbe, and exporting beans, rape seed, barley, and oats principally to ports in Great Britain. The quantities of these imports and exports are not attainable, and their statistics are not published.

Turning now to the Weser, on whose left bank the duchy is situated, the first place of any importance is Nordenhamm, which lies nearly opposite to the ports of Bremerhaven and Sestemiinde, and to which I wish to call the attention of those in the United States who are inter-

ested in any ocean, steam, or other navigation. The place itself is only at its commencement, and can hardly as yet be called a village; but its favorable situation, close to the river, so that any sized steamer or vessel could, without entering dock, discharge direct into the railway cars, will bring it sooner or later to the attention of the lines of steamers trading to or from Germany.

Here will be found the cheapest and most convenient accommodations, with railway connections throughout all Germany, of which the direction, although a state institution, will favor those applying, and grant the lowest rate of freight accorded, so that companies or individuals could offer the lowest through freight from the United States to any place in Germany, or *vice versa*, without interference of brokers or commission merchants, &c., and thereby save the heavy expenses which the Bremen and Hamburg steamers incur by first discharging into lighters and then transporting the goods to the railway cars.

Besides this, Nordenhamm is the most convenient and cheapest place for erecting warehouses to store goods, and I have no doubt that sufficient space for such establishments will be granted on very easy terms. This place is, on account of the rare depth of water so close in shore, in my opinion, the best landing place for any steam line to Germany, and also on account of the convenience and cheapness of its railway connections to all parts south, southeast, and east of the place. Moreover, I may remark that it might be possible to make arrangements with the Zoll-direction (the direction of the customs) to establish closed docks with bonded warehouses, where vessels might enter without being troubled by custom-house officers.

The number of the larger sea-going and foreign trading vessels which arrived here in last year amounted to 37, in all 25,240 tons, of which 12 carried the German flag, with about 9,268 tons; 17 the Norwegian flag, with about 7,960 tons; 3 the United States flag, with about 3,905 tons; 3 the British flag, with about 2,953 tons; 1 the Russian flag, with about 603 tons; 1 the Italian flag, with about 551 tons; total, 12 ships; register tonnage of 25,240 tons, with cargoes of maize, rye, and petroleum, most all for the account of Bremen or Hamburg merchants.

In the duchy further up the river is the neat and principal seaport of Brake, which should have been mentioned prior to Nordenhamm had it possessed the interesting aspects of this latter. The river Weser already commences here to get shallow, so that vessels of only 16 or 17 feet draft of water can come up, and as this will hardly be overcome by dredging the river, Brake can command no other trade than, at present, that is to say, in vessels drawing no more than 16 to 17 feet.

As above stated, Brake has the privilege of being excluded from the zolverein, and, being a free port like Hamburg and Bremen, boasts of many commission merchants, or forwarding agents, which make the place a very lively one; but owing to the circumstance that no official accounts are kept of the imports and exports no reliable statement can be made of its commerce. In the year 1880 the arrivals of sea-going vessels amounted to 480, of about 69,120 register tons, and a total crew of 2,870, all told. Of these, 340 carried the national German flag; 58 the British flag; 42 the Norwegian flag; 7 the Swedish flag; 25 the Dutch flag; 6 the Danish flag; 2 the Russian flag. Number of vessels arrived from German ports, 189; England, 104; Norway, 55; Sweden, 26; Russia, 63; Holland, 2; Belgium, 6; France, 5; Portugal, 10; Italy, 1; Roumania, 2; west coast of Africa, 1; British North America, 3; United States of America, 11; Nicaragua, 1; West Indies, 1. The cargoes of these vessels consisted of—boards and timber, 162 vessels; coals, 32;

cokes, 2; cokes and iron, 5; pig iron, 16; slates, 9; fire-bricks, 5; cement, 28; stones, 6; broken glass, 7; flints, 4; asphalt, 1; chalk, 1; clay, 3; rails, 1; pitch, 2; tar, 6; salt, 1; corn, 17; cork and wine, 7; palm oil, 1; general cargo, 48; 106 arrived in ballast or were empty.

The number of vessels cleared amounted to 492, of about 70,860 register tons, and a total number of crew of 2,941. Of these there cleared for German ports, 189; Norway, 55; Sweden, 32; Russia, 65; Denmark, 6; England, 90; Holland, 3; Belgium, 1; France, 2; Spain, 1; Portugal, 14; Canary Islands, 2; Italy, 1; Turkey, 1; Cape Verde Islands, 1; west coast of Africa, 3; British North America, 3; United States of America, 4; West Indies, 4; Guayama, 1; East Indies, 1; for sea, 14. The cargo consisted of—22 of them in boards and timber; 60 of a general character; lignum vitæ, 1; staves, 2; stones, 2; coals, 8; cokes, 9; asphalt, 11; railway rails, 9; cement, 6; straw, 3; tobacco, 3; rice and rice meal, 16; refined sugar, 4; empty bottles, 7; in ballast, 329. Vessels belonging to the United States did not participate in this trade.

The export trade for this port in general was hardly so lively as in former years, owing to high prices and small stock of all agricultural produce hereabouts.

Shipping in this year hardly gave any better returns to the owners than the previous years. Nevertheless the vessels belonging here increased from 62,085 registered tons in 178 vessels against 59,114 registered tons in 187 vessels in 1879, making an increase of nearly 3,000 tons, but a decrease of nine vessels, showing that owners find the larger vessels more profitable than the smaller ones.

Ship-building, formerly one of the principal branches of industry in the duchy, after sinking into insignificance in former years, commences to show life again. The 13 yards here and in the vicinity are working now with about 380 men, and turned out eight vessels last year of 5,000 tons register, and were fully occupied for the year 1881. Iron ship-building has not come into practice in these yards. This is the more to be regretted as the demand for these vessels is increasing daily.

Buoys, beacons, and light-houses on the river into the North Sea are under the superintendence of the Bremen Government and are in excellent condition.

Finally, I have to state that the import trade from the United States to this duchy is entirely in the hands of the Bremen merchants. However, I am of opinion that a good direct trade in agricultural implements, canned goods, salted beef and pork, of which there is a large consumption, not only by the shipping but also by the inhabitants, might be opened, if either competent salesmen speaking the German language were sent out here or patterns of implements of all kinds were exposed here to public view for sale; but all of them should be of the very best material.

JOHN G. GROSS,  
*Consular Agent.*

UNITED STATES CONSULAR AGENCY,  
*Brake-Nordenhamm, 1881.*

**BRITISH EXPORTS TO THE UNITED STATES.***REPORT BY CONSUL-GENERAL BADEAU, OF LONDON.*

I have the honor to present a statement of the condition of the various consulates in the United Kingdom. This statement relates especially to the business of the year ending September 30, 1880, and is based partly upon my correspondence and personal intercourse with the consuls, and partly upon their reports now forwarded, supplemented also by the returns compiled in this office showing the declared value of the exports to the United States from the respective consular districts during the year.

With this statement is also forwarded a report of the value of declared exports for the past eight years from the districts under my jurisdiction, so arranged as to show—

1. In their alphabetical order the value of exports from the various districts from 1873 to 1880, inclusive.
2. A summary giving the gross total for each year.
3. A recapitulation for the eight years.
4. A recapitulation for the past twelve months.

Much time and labor have been bestowed on this return in order to render it accurate and comprehensive. For purposes of analysis, and to show at a glance the course of the export trade between this kingdom and the United States, I believe it will be found a faithful and valuable record.

I beg also to invite attention to a statement compiled at this consulate-general, giving the value of declared exports from the various consular districts of the United States in the United Kingdom for the four quarters of the years ending September 30, 1879 and 1880, and showing the increases and percentage of increases for the four quarters of the last-named year. It will be observed that the increase in the September, as compared with those of the previous quarters, is not nearly so marked, and present indications warrant the assumption that the figures for the current year will exhibit a considerable falling off when they come to be compared with those of the year with which I am now dealing.

My report of last year exhibited an increase in the value of exports from the United Kingdom to the United States of \$15,719,613.85, or a total increase of nearly 19 per cent. on the values of the preceding year. This year my compilation from the same sources exhibits an increase of no less than \$93,493,295.90, being nearly 95 per cent. for the year ending September 30, 1880. The increase was in twenty-three consulates; the decrease in two. The decrease at these two points was caused by special circumstances; at Bristol, by the loss of the port of Gloucester as an agency; and at Southampton a large falling off was experienced in the exportation of cattle, horses, &c., into the United States. The total value of exports from this kingdom to the United States for the year was \$191,973,290.22.

The following table exhibits the most important increases:

**EXPORTS TO THE UNITED STATES.****Belfast:**

This year an increase of .....	\$2, 087, 676
Last year an increase of .....	1, 084, 929

**Birmingham:**

This year an increase of .....	2, 485, 161
Last year an increase of .....	125, 758

<b>Bradford:</b>		
This year an increase of .....		\$4, 776, 358
Last year an increase of .....		261, 488
<b>Cardiff:</b>		
This year an increase of .....		1, 217, 480
Last year an increase of .....		310, 427
<b>Cork:</b>		
This year an increase of .....		225, 008
Last year an increase of .....		29, 812
<b>Dublin:</b>		
This year an increase of .....		327, 197
Last year an increase of .....		119, 055
<b>Dundee:</b>		
This year an increase of .....		3, 111, 814
Last year an increase of .....		470, 910
<b>Dunfermline:</b>		
This year an increase of .....		717, 182
Last year an increase of .....		344, 042
<b>Falmouth:</b>		
This year an increase of .....		65, 215
Last year an increase of .....		12, 216
<b>Glasgow:</b>		
This year an increase of .....		3, 921, 582
Last year an increase of .....		1, 049, 345
<b>Leeds:</b>		
This year an increase of .....		2, 058, 372
Last year an increase of .....		145, 595
<b>Leith:</b>		
This year an increase of .....		179, 382
Last year a decrease of .....		242, 870
<b>Liverpool:</b>		
This year an increase of .....		19, 527, 319
Last year an increase of .....		3, 978, 011
<b>London:</b>		
This year an increase of .....		38, 260, 248
Last year an increase of .....		5, 004, 290
<b>Manchester:</b>		
This year an increase of .....		6, 421, 937
Last year an increase of .....		637, 557
<b>Newcastle-on-Tyne:</b>		
This year an increase of .....		1, 310, 245
Last year an increase of .....		225, 016
<b>Nottingham:</b>		
This year an increase of .....		2, 716, 562
Last year an increase of .....		135, 901
<b>Sheffield:</b>		
This year an increase of .....		2, 465, 749
Last year an increase of .....		583, 499
<b>Tunstall:</b>		
This year an increase of .....		1, 016, 368
Last year an increase of .....		82, 794

I have now the honor to refer to the condition of the individual consulates.

#### BELFAST.

A substantial improvement in the export trade from this consulate to the United States has taken place during the past year. The increase during the past year, as compared with 1879, amounted in the aggregate to \$2,087,676, or an increase of over 28 per cent. Last year the increase was over 17 per cent.

The following figures show the value of exports for the past eight years:

Year ending September 30—

1873 .....	\$7, 460, 197 10
1874 .....	7, 737, 266 18
1875 .....	7, 243, 160 36

## Year ending September 30—

1876.....	6, 244, 088 77
1877.....	6, 640, 559 13
1878.....	6, 243, 226 62
1879.....	7, 328, 156 19
1880.....	9, 415, 832 81

It will thus be observed that the exports for the past year exceed those of any year embraced in the foregoing return.

Linens and cottons constitute more than 92 per cent. of the declared value of exports for the year.

The past season was the most favorable for agriculture that has been known for many years; an abundant harvest was gathered in, and with the revival of prosperity here and the reports received of active trade in the United States, manufacturers of the staple industry of the district anticipate prosperous times.

## BIRMINGHAM.

The check in the decline of the value of exports from this district to the United States notified in my last report has not only been maintained, but the important increase is exhibited of \$2,485,161, or more than 102 per cent.

The following figures show the course of trade at this important manufacturing center during the past eight years:

## Year ending September 30—

1873.....	\$7, 463, 185 72. 49
1874.....	5, 778, 957 84. 00
1875.....	4, 791, 231 29. 00
1876.....	3, 135, 234 92. 00
1877.....	2, 842, 871 05. 00
1878.....	2, 309, 513 42. 00
1879.....	2, 435, 271 89. 00
1880.....	4, 920, 433 58. 00

The report furnished by the consul for this district contains much useful information.

## BRADFORD.

In my last report I noted an increase in the value of exports to the United States from this consulate of more than 4½ per cent. as compared with those of the preceding twelve months. This year an increase is exhibited of \$4,776,358, or more than 80 per cent. as compared with the preceding year.

The following figures show the value of exports from this district for the past seven years:

## Year ending September 30—

1873.....	\$15, 900, 091 72
1874.....	13, 841, 819 21
1875.....	11, 629, 262 15
1876.....	7, 197, 347 88
1877.....	7, 311, 101 75
1878.....	5, 693, 799 37
1879.....	5, 955, 287 85
1880.....	10, 731, 646 49

The first three quarters of the year show an increase of \$5,024,370, as compared with the corresponding quarters of the previous year; the last quarter exhibits a decrease of \$248,012. Stuffs constitute nearly 68 per cent. of the entire value of declared exports to the United States from this center.

## BRISTOL.

The returns from this consulate show a decrease in the value of exports for the year ending September 30, 1880, of \$7,375.23, or nearly 4½ per cent., as compared with the preceding twelve months.

In this connection it should be borne in mind that since my last report, Gloucester, then an agency of this consulate, has been raised to the grade of a commercial agency. If, therefore, the Bristol and Gloucester returns for the past year are added together, namely, Bristol, \$157,177.01; Gloucester, \$195,880.38 = \$353,057.39, and compared with those for the twelve months ending September 30, 1879, viz, \$164,552.24, it will be seen that there has during the past year, in reality, been an increase in this district of \$188,505.15, or more than 114 per cent.

It is curious to note that the declared value of exports from Gloucester is considerably in excess of that at Bristol. The report from this consulate contains much interesting matter.

The exports to the United States for the past eight years have been :

Year ending September 30—

1873.....	\$306,901 76
1874.....	305,863 06
1875.....	390,595 58
1876.....	217,427 57
1877.....	218,222 00
1878.....	166,648 20
1879.....	164,552 24
1880.....	157,177 01

## CARDIFF.

The returns from this district exhibit an increase in each quarter of the year amounting in the aggregate to \$1,217,480.50, or more than 200 per cent. In my last report I was able to note the great improvement on the previous year of nearly 105 per cent. In 1877 the business transacted at this center with the United States was only about 6 per cent. of the declared value of exports for 1880, and although this points to a great revival in trade, the exports for 1880 do not yet bear comparison with those of 1873, as the following statistics show :

Year ending September 30—

1873.....	\$4,411,124 39
1874.....	497,161 78
1875.....	445,730 44
1876.....	155,294 69
1877.....	102,271 70
1878.....	296,903 74
1879.....	607,331 57
1880.....	1,824,812 07

The principal exports are iron and steel rails, spiegeleisen, and tin plates. The export of coal has fallen off to a mere nominal item. Coal prices rule low but with an upward tendency. Collieries and iron works exhibit signs of recovery from the long season of depression through which this important coal and iron producing center has passed. The importation of American live cattle has increased at this port since my last report.

## CORK.

The returns from this consulate for the twelve months ending September 30, 1880, show an increase in each quarter, when compared with the corresponding one of the previous year, amounting in the aggregate

to \$225,008.92, or more than 271 per cent. Hides and skins are the chief articles of export from the district.

The following figures show the declared value of exports for the past eight years :

Year ending September 30—

1873.....	\$147,571 32
1874.....	115,374 35
1875.....	80,159 58
1876.....	37,455 01
1877.....	40,845 71
1878.....	53,203 07
1879.....	83,016 01
1880.....	308,024 93

#### DUBLIN.

The returns from this consulate show an increase in each quarter of the year in the value of exports, when compared with those of the preceding twelve months, amounting in the aggregate to \$327,197.31, or more than 46 per cent. Salted skins, and ale and porter, constitute the principal articles of export to the United States.

The exports for the past eight years are as follows.

Year ending September 30—

1873.....	\$1,164,020 68
1874.....	928,900 81
1875.....	769,660 39
1876.....	639,550 65
1877.....	550,311 80
1878.....	583,162 66
1879.....	702,218 46
1880.....	1,029,415 77

#### DUNDEE.

The returns for this district exhibit an increase in the value of exports of \$3,111,814.38, or rather more than 60 per cent. Each quarter of the year shows an improvement, the last being less marked.

The following figures give the declared values for the past eight years :

Year ending September 30—

1873.....	\$7,094,321 53
1874.....	6,685,688 74
1875.....	5,999,913 37
1876.....	5,473,143 70
1877.....	4,825,588 12
1878.....	4,641,560 47
1879.....	5,112,470 82
1880.....	8,224,285 20

Burlaps and linens as heretofore constitute by far the most important articles of export from this district.

The prospects of the jute trade—the great staple of this center—are not so encouraging at present as at the same time last year. It is reported that there are large stocks of jute in New York, and the prices ruling there at present and for some time back favor this supposition.

Ship-building still continues inactive. There is at present no demand for wooden vessels, but the prospects for iron vessels are better than they were last year. The whale fishing this year has, on the whole, been successful, and the result considerably above the average of previous years. One captain reports "that the weather at Davis Straits fishing grounds was the finest he ever experienced in those northern

latitudes." The City of Glasgow Bank failure is being forgotten, and business confidence is again almost as great as ever. The harvest in this district is the best that has been experienced for many years.

The report furnished by the consul at this port bears evidence of careful preparation and contains a great deal of valuable information.

#### DUNFERMLINE.

The returns for this district show an increase in the value of exports in each quarter of the year as compared with those of the preceding twelve months, amounting in the aggregate to \$717,182.44, or more than 49 per cent. Linens constitute more than 73 per cent. of the exports from this center. Until 1878, Dunfermline was an agency of the Leith consulate; in that year the exports to the United States amounted to \$1,099,002.88; in 1879 they were \$1,443,045.32 in value.

The following figures give the declared value of exports for the past three years.

Year ending September 30—

1878 .....	\$1,099,002 88
1879 .....	1,443,045 32
1880 .....	2,160,227 76

Dunfermline is now the largest center in the United Kingdom for the manufacture of all kinds of linen damask, and it is estimated that about two-thirds of all that is made finds its way to the United States.

#### FALMOUTH.

The returns for this district show an increase in the value of exports over the preceding year of \$65,215.93, or more than 96 per cent. On reference to the following figures it will also be observed that the declared exports for 1880 largely exceed those of any of the eight years embraced in my tabular compilation, but in this connection it should be explained that the figures for the June quarter include the value of a cargo of Havana sugar (\$67,509.90) ordered from this port to New York, a very unusual circumstance.

Year ending September 30—

1873 .....	\$54,052 30
1874 .....	60,420 52
1875 .....	57,487 85
1876 .....	44,636 44
1877 .....	53,451 77
1878 .....	55,036 64
1879 .....	67,253 47
1880 .....	132,469 40

The tin standards have fluctuated considerably during the year, but on the whole tin mining in this county is in a less depressed state at the present time than for some years past; the average standard for copper is also higher than it was in 1877, causing the prospects of copper mines to be a little more hopeful.

The harvest in this part of England has been one of the most abundant experienced for many years—the yield of all grain crops large, and the quality and condition most satisfactory. The root crops are also very fine and much above the average quantity per acre.

#### GLASGOW.

The returns for the year ending September 30, 1880, show an increase in the value of exports from Glasgow, amounting in the whole to \$3,921,-

582, or more than 74 per cent. Pig-iron constitutes more than 34 per cent. of the declared value of exports from this district; thread ranks next, being 25 per cent.

The following statistics exhibit the values for the past eight years, viz :

Year ending September 30—

1873 .....	\$8,262,433 88
1874 .....	6,377,818 61
1875 .....	5,796,289 62
1876 .....	5,101,128 94
1877 .....	4,589,156 85
1878 .....	4,249,000 00
1879 .....	5,298,345 00
1880 .....	9,219,927 88

#### GLOUCESTER.

The returns from this point have hitherto been incorporated with those from Bristol, Gloucester having been an agency of the Bristol consulate until the latter part of last year, when it was raised to the grade of a commercial agency, and it is curious to note that in the first year of its separate existence the exports for the year exceed (by \$38,703) those of Bristol.

The declared values of exports for the year ending September 30, 1880, were \$195,880.38. The vice-commercial agent in his report states that the trade and commerce for the district have experienced some change for the better.

#### HULL.

Until 1879 Hull was an agency of the Leeds consulate. During the year ending September 30, 1879, the value of the exports to the United States was \$131,683.09. That for the twelve months ending September 30, 1880, amounts to \$547,247.23, an increase of 315 per cent.

#### LEEDS.

The returns from this district show an increase in the value of exports for the year ending September 30, 1880, as compared with the preceding twelve months, of \$2,058,372.13, or more than 132 per cent. Last year the increase was 10 per cent. In 1878 there was a decrease of over 17 per cent.

In 1879 Hull, formerly an agency of Leeds, was raised to the grade of a commercial agency; consequently, to form a correct estimate of the increase of the trade of this district with the United States, as compared with 1878, the value of the declared exports from Hull for 1879 should be added; this would give nearer 20 than the 10 per cent. increase alluded to above.

Woolens, as in former years, form by far the chief article of export from this consulate.

The values of the declared exports for the last eight years are as follows :

Year ending September 30—

1873 .....	\$4,868,277 08
1874 .....	3,602,104 55
1875 .....	3,626,535 43
1876 .....	2,135,376 68
1877 .....	1,704,327 58
1878 .....	1,411,370 59
1879 .....	1,556,965 96
1880 .....	3,615,338 09

## LEITH.

The returns from this district for the year ending September 30, 1880, show an increase in each quarter amounting in the aggregate to \$179,382, or more than 43½ per cent. of the value of exports, as compared with 1879. In my last report I noted that a consular agency had been then but recently created at Kirkcaldy, which was formerly in this district, and attached to the commercial agency of Dunfermline. The latter place itself, prior to 1877, was an agency of the Leith consulate. Thus, in order to arrive at a correct estimate of the course of trade at Leith, the figures for Dunfermline for the years 1878 and 1879 should be added.

The returns of exports to the United States will then show for the—

Year ending September 30—		
1873 .....		\$2,996,418 26
1874 .....		1,862,032 28
1875 .....		2,294,385 65
1876 .....		1,779,976 39
1877 .....		1,671,257 79
Year ending September 30, 1878:		
Leith .....	\$611,810 09	
Dunfermline .....	1,099,002 88	
		<hr/> 1,710,813 97
Year ending September 30, 1879:		
Leith .....	368,939 12	
Dunfermline .....	1,443,045 32	
		<hr/> 1,811,984 44

It will be thus seen that there was a very sensible increase in the declared value of exports during the twelve months ending September 30, 1879, in this district as it originally existed. With this explanation I now append the statistics for Leith proper, viz:

Year ending September 30—		
1873 .....		\$2,996,418 26
1874 .....		1,862,032 28
1875 .....		2,294,385 65
1876 .....		1,779,976 39
1877 .....		1,671,257 79
1878 .....		611,810 09
1879 .....		368,939 12
1880 .....		548,321 12

Books now form the article of chief value from this district; formerly it was linens.

In my last report I had to record that the harvest in Scotland was by far the worst that the farmers had known for years; that for 1880 is considered to be among the best that Scotch agriculturists have experienced for more than a generation. Throughout Scotland every crop this year was good. The Scotchman of October 5, 1880, contains a very exhaustive statement on this subject, which is forwarded with other interesting matter by the vice-consul at this port.

## LIVERPOOL.

The returns for this important district show an increase in every quarter of the year ending September 30, 1880, as compared with the preceding twelve months; but it should be observed that the figures for the last quarter show only a very slight increase. In my last report an increase for the year was shown of \$3,978,011.96, or nearly 21 per cent. This year the increase amounts to \$19,527,319.05, or more than 84½ per cent.

Last year tin plates constituted more than 39 per cent. of the declared exports; this year, although they only amount to about 21 per cent, there is still an increase in their values of \$152,997.19. Chemicals, last year, formed 20½ per cent. of the total value of exports; this year they amount to not quite 14 per cent., although the increase in the declared value is \$1,276,380.76.

The following figures exhibit the total value of exports to the United States for the past eight years :

Year ending September 30—

1873 .....	\$36,095,983 86
1874 .....	31,791,783 75
1875 .....	27,307,312 61
1876 .....	22,947,802 20
1877 .....	22,585,056 66
1878 .....	19,084,235 15
1879 .....	23,062,247 11
1880 .....	42,589,566 16

It will be noticed that the value of exports from this great shipping center for the year ending September 30, 1880, is larger than for any other year embraced in the foregoing return.

The customs revenue at this port for 1879 amounted to \$13,976,942 against \$15,047,813 for 1878. The total value of imports from the United States was \$260,089,109 for 1879 against \$261,327,021 for 1878.

The various tabular forms furnished by the consul at this port contain much valuable information.

#### LONDON.

The returns for the consulate-general exhibit an increase in each quarter of the year ending September 30, 1880, when compared with those of the preceding twelve months, amounting in the aggregate to the large sum of \$38,260,248, or more than 156½ per cent. In my last report I noted an increase of 25 per cent. The increase has now been continuous at this center for the last nine quarters; it should, however, be mentioned that the increase in the quarter ending September 30, 1880, is quite moderate when compared with that of the other quarters of the year.

The following are the total values of exports to the United States for the past eight years :

Year ending September 30—

1873 .....	\$36,883,557 37.55
1874 .....	29,402,080 24.52
1875 .....	25,602,624 67.66
1876 .....	20,509,669 26.54
1877 .....	22,728,837 83.75
1878 .....	19,416,581 34.56
1879 .....	24,420,872 05.08
1880 .....	62,681,120 18.13

Upon reference to my general statement, compiled from consular returns, it will be seen that the largest increase in the value of declared exports for the past year has occurred at London, and it will be observed upon reference to my recapitulation that London heads the list not only for the past year but also in the gross total for the past eight years.

Eighty-two American vessels entered the port during the twelve months ending September 30, 1880, against 74 in 1879. The tonnage of American vessels entered during the same period was 96,516.89, against 84,924.79 in the preceding year.

The value of merchandise imported in American bottoms for the year ending September 30, 1880, was about \$5,779,700, the exports \$1,843,115. For the preceding year the imports were about \$6,296,980 and the exports \$1,229,885.

*Imports.*—The total value of the imports into London declared during the year 1879 was \$628,096,783, being 35 per cent. of all imports into Great Britain and Ireland. There was an increased value of \$11,700,000 over the imports of 1878, but the total value was \$56,000,000 less than that of 1877.

*Exports.*—The total value of exports of British and Irish produce and manufacture from London in 1879 was \$230,288,438, as against \$234,229,672 in 1878. The value was one-fourth of that of the total value of British produce exported from the United Kingdom.

*Customs.*—The amount of customs revenue collected at London during 1879 was \$50,131,028, a decline of \$344,000. This was 52 per cent. of the total customs receipts at all ports in the United Kingdom.

#### LONDONDERBY.

The returns from this consulate for 1880, as compared with those for the preceding year, show an increase in the value of exports to the United States of \$476.11, or more than 22 per cent.

The following statistics testify to the small amount of export business with the United States at this point:

Year ending September 30—

1873 .....	\$173, 295 77
1874 .....	50, 757 47
1875 .....	5, 585 02
1876 .....	6, 248 07
1877 .....	782 16
1878 .....	1, 797 66
1879 .....	2, 133 92
1880 .....	2, 610 03

#### MANCHESTER.

The returns from this, the cotton manufacturing center of the world, show an increase in each quarter of the year ending September 30, 1880, amounting in the aggregate to \$6,421,937.36, or more than 72½ per cent. as compared with the preceding twelve months. In my last report I noted an increase of more than 7½ per cent. This year cottons constitute more than 44 per cent. of the entire value of exports; last year they were 54½ per cent., and the year before that 58 per cent.

From the following statistics it will be seen that notwithstanding the large increase in value of exports during the past year the declared value of exports still fall far short of what they were even in 1875:

Year ending September 30—

1873 .....	\$21, 978, 696 48
1874 .....	19, 339, 295 72
1875 .....	18, 139, 681 27
1876 .....	10, 141, 092 94
1877 .....	9, 876, 768 09
1878 .....	8, 176, 886 53
1879 .....	8, 814, 443 92
1880 .....	15, 236, 381 28

#### NEWCASTLE.

The returns from this district show an increase in the value of exports to the United States for the year ending September 30, 1880, of

\$1,310,245.25, or over 128½ per cent. as compared with the preceding twelve months. Sodas constituted more than 32½ per cent. of the values against 31½ per cent. last year; iron ranks next, constituting nearly 26 per cent.; furs and skins over 6 per cent. against 19½ per cent. for last year; chemicals amount to more than 9 per cent. against 19½ the year before.

It will be seen from the following statistics that, although a great improvement has taken place during the past year, the export business between this point and the United States still falls short of what it was in 1873.

Since my last report trade has continued to revive, as was then anticipated. Greater confidence now prevails in commercial circles than has been experienced for several years, especially as regards American trade. Direct ocean communication is now established between New York and this port, and a small passenger traffic is being carried on. The reports from the various iron localities of this center are encouraging, a better feeling pervades the markets, and great hopefulness is expressed that the improvement will prove lasting. The harvest is a better one than has been experienced in this district for many years.

The report and tabular forms from the consul at this port contain, as in past years, much useful information.

The exports for the past eight years to the United States have been:

Year ending September 30—

1873 .....	\$3,259,780 96
1874 .....	1,179,818 65
1875 .....	835,181 00
1876 .....	839,007 29
1877 .....	{ 640,836 16
	{ 107,863 09
1878 .....	793,289 86
1879 .....	1,018,306 44
1880 .....	2,328,551 69

#### NOTTINGHAM.

The returns from this consulate exhibit an increase in exports to the United States in each quarter of the year, as compared with the preceding twelve months, amounting in the aggregate to \$2,716,562.74, or over 61 per cent. The lace trade is essentially the staple of this district, the declared value of exports in that branch alone being \$5,055,933.90, or nearly 71 per cent. of the total value for the year.

Until 1877 Nottingham was an agency of the Sheffield consulate; since then the returns have been as follows:

Year ending September 30—

1878 .....	\$3,062,216 71
1879 .....	4,421,233 42
1880 .....	7,137,796 16

#### PLYMOUTH.

The returns from this district for the year ending September 30, 1880, when compared with those of the preceding twelve months, exhibit an increase of \$27,543.60, or over 259 per cent. As in former years, the exportation consists principally of China clay, which this year furnishes more than 83 per cent. of the entire value of declared exports, against 97 for the preceding twelve months.

The building of wooden ships, once one of the principal industries of this center, is, except for vessels of small size, almost abandoned. Trade,

although improved in tone, has not entirely recovered from the general depression of the last few years. There is an absence of any speculative disposition, operations being confined to actual requirements. The harvest in this locality has been above the average of a good one.

In the various stores and shops of the Island of Jersey—a dependency of this consulate—may be seen quite a variety of American ironmongery goods, the American hay-forks being preferred to those of English manufacture.

The declared values of exports from this district for the past eight years are as follows :

Year ending September 30—

1873 .....	\$37,594 90 00
1874 .....	22,038 70 00
1875 .....	4,980 56 00
1876 .....	1,620 26 00
1877 .....	21,071 69 00
1878 .....	21,473 92 20
1879 .....	10,611 34 00
1880 .....	38,154 94 00

#### SHEFFIELD.

The returns for this district exhibit an increase in the value of declared exports for the year ending September 30, 1880, of \$2,465,749.66, or more than 90½ per cent., as compared with the preceding twelve months.

The following figures give the value of declared exports for the past eight years from this district:

Year ending September 30—

1873 .....	\$14,197,614 72
1874 .....	11,309,037 51
1875 .....	7,725,718 08
1876 .....	5,698,197 78
1877 .....	5,720,331 20
1878 .....	2,140,443 49
1879 .....	2,723,943 18
1880 .....	5,189,692 84

Although several branches of Sheffield trade with the United States, once very important, are now almost extinct, the aggregate of the present year would seem to indicate that Sheffield is, to a considerable extent, regaining her former prosperity. This may possibly be true, as regards a few branches of the trade. Of the large increase now noted, no less than 79 per cent. occurred in the shipment of Bessemer rails, steel, and cutlery.

The remarks of the consul, in connection with the export trade to the United States at this center, are worthy of the attention of our manufacturers.

#### SOUTHAMPTON.

The returns here exhibit a decrease in the declared value of exports for the year ending September 30, 1880, as compared with the preceding twelve months, of \$29,656.73, or over 46 per cent.

For the twelve months ending September 30, 1879, live stock constituted more than 65 per cent. of the entire value of declared exports, but for the year ending September 10, 1880, it constituted only a little over 23 per cent., and none was shipped during the first three quarters of the year.

The following are the declared values of exports for the past eight years :

Year ending September 30—

1873 .....	\$39,774 58
1874 .....	17,662 67
1875 .....	9,786 58
1876 .....	20,653 69
1877* .....	.....
1878 .....	44,536 28
1879 .....	64,189 22
1880 .....	34,532 49

Trade generally at this center has considerably improved since my last report.

#### TUNSTALL.

The returns from this consulate show an increase of \$1,016,368, or over 38 per cent. in the value of exports for the year ending September 30, 1880, when compared with the preceding twelve months. Last year I had to report an increase of about 3 per cent.

Earthenware represents nearly 87 per cent. of the total value of declared exports to the United States from this district during the past year, against 91 for the preceding twelve months.

The following are the figures for the past eight years :

Year ending September 30—

1873 .....	\$4,211,584 33.45
1874 .....	2,913,201 94.65
1875 .....	2,722,526 55.55
1876 .....	2,568,707 12.00
1877 .....	2,428,483 17.00
1878 .....	2,604,681 77.00
1879 .....	2,687,476 73.00
1880 .....	3,703,844 73.00

ADAM BADEAU,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*London, May 30, 1881.*

#### RECAPITULATION.

*Statement showing value of declared exports from the various consular districts of the United Kingdom of Great Britain and Ireland to the United States of America, from September 30, 1872, to September 30, 1880, compiled at the consulate-general, London.*

BELFAST.		BIRMINGHAM.	
Year ending September 30—		Year ending September 30—	
1873.....	\$7,460,197 10.00	1873.....	\$7,463,185 72.49
1874.....	7,737,266 18.00	1874.....	5,778,957 84.00
1875.....	7,243,160 36.00	1875.....	4,791,231 29.00
1876.....	6,244,088 77.00	1876.....	3,135,234 92.00
1877.....	6,640,559 13.00	1877.....	2,842,871 05.00
1878.....	6,243,226 62.00	1878.....	2,309,513 42.00
1879.....	7,328,156 19.00	1879.....	2,435,271 89.00
1880.....	9,415,832 81.00	1880.....	4,920,433 58.00
	<u>58,312,487 16.00</u>		<u>33,676,699 71.49</u>

\*During this period Southampton was an agency of London.

*Statement showing value of declared exports from the various Consular districts of the United Kingdom of Great Britain and Ireland to the United States, &c.—Continued.*

BRADFORD.		
Year ending September 30—		
1873.....	\$15,900,091	72. 00
1874.....	13,841,819	21. 00
1875.....	11,629,262	15. 00
1876.....	7,197,347	83. 00
1877.....	7,311,101	75. 00
1878.....	5,693,799	37. 00
1879.....	5,955,287	85. 00
1880.....	10,731,646	49. 00
	<hr/>	
	78,260,356	42. 00
	<hr/>	

BRISTOL.		
Year ending September 30—		
1873.....	\$306,901	76. 00
1874.....	305,863	06. 00
1875.....	390,595	58. 00
1876.....	217,427	57. 00
1877.....	218,222	00. 00
1878.....	166,648	20. 00
1879.....	164,552	24. 00
1880.....	157,177	01. 00
	<hr/>	
	1,927,387	42. 00
	<hr/>	

CARDIFF.		
Year ending September 30—		
1873.....	\$4,411,124	39. 00
1874.....	497,161	78. 00
1875.....	445,730	44. 00
1876.....	155,294	69. 00
1877.....	102,271	70. 00
1878.....	296,903	74. 00
1879.....	607,331	57. 00
1880.....	1,824,812	07. 00
	<hr/>	
	8,340,630	38. 00
	<hr/>	

CORK.		
Year ending September 30—		
1873.....	\$147,571	33. 00
1874.....	115,374	35. 00
1875.....	80,159	58. 00
1876.....	37,455	01. 00
1877.....	40,845	71. 00
1878.....	53,203	07. 00
1879.....	83,016	01. 00
1880.....	308,024	93. 00
	<hr/>	
	865,649	98. 00
	<hr/>	

DUBLIN.		
Year ending September 30—		
1873.....	\$1,164,020	68. 00
1874.....	928,900	81. 00
1875.....	769,660	39. 00
1876.....	639,550	65. 00
1877.....	550,311	80. 00
1878.....	583,162	66. 00
1879.....	702,218	46. 00
1880.....	1,029,415	77. 00
	<hr/>	
	6,367,241	22. 00
	<hr/>	

DUNDEE.		
Year ending September 30—		
1873.....	\$7,094,321	53. 00
1874.....	6,685,688	74. 00
1875.....	5,999,913	37. 00
1876.....	5,473,143	70. 00
1877.....	4,825,588	12. 00
1878.....	4,641,560	47. 00
1879.....	5,112,470	82. 00
1880.....	8,224,285	20. 00
	<hr/>	
	48,056,971	95. 00
	<hr/>	

DUNFERMLINE.		
1873.....	Hitherto an agency of the Leith con- sulate.	
1874.....		
1875.....		
1876.....		
1877.....		
1878.....	\$1,099,002	88. 00
1879.....	1,443,045	32. 00
1880.....	2,160,227	76. 00
	<hr/>	
	4,762,275	96. 00
	<hr/>	

FALMOUTH.		
Year ending September 30—		
1873.....	\$54,052	30. 00
1874.....	60,420	52. 00
1875.....	57,487	85. 00
1876.....	44,636	44. 00
1877.....	53,451	77. 00
1878.....	55,036	64. 00
1879.....	67,253	47. 00
1880.....	132,469	40. 00
	<hr/>	
	524,808	39. 00
	<hr/>	

GLASGOW.		
Year ending September 30—		
1873.....	\$8,262,433	88. 00
1874.....	6,377,818	61. 00
1875.....	5,796,289	62. 00
1876.....	5,101,128	94. 00
1877.....	4,589,156	85. 00
1878.....	4,249,000	00. 00
1879.....	5,298,345	00. 00
1880.....	9,219,927	83. 00
	<hr/>	
	48,894,100	78. 00
	<hr/>	

GLOUCESTER.		
Year ending September 30—		
1873.....	Hitherto an agency of the Bristol con- sulate.	
1874.....		
1875.....		
1876.....		
1877.....		
1878.....		
1879.....		
1880.....	\$195,880	38. 00
	<hr/>	

*Statement showing value of declared exports from the various Consular districts of the United Kingdom of Great Britain and Ireland to the United States, &c.—Continued.*

HULL.			LONDON.		
Year ending September 30—			Year ending September 30—		
1873.....	} Hitherto an agency of the Leeds con- sulate.		1873.....	\$36,883,557	37.55
1874.....			1874.....	29,402,080	24.52
1875.....			1875.....	25,602,624	67.66
1876.....			1876.....	20,509,669	26.54
1877.....			1877.....	22,728,837	83.75
1878.....			1878.....	19,416,581	34.56
1879.....		\$131,683 09.00	1879.....	24,420,872	05.08
1880.....		547,247 23.00	1880.....	62,681,120	18.13
		<u>678,930 32.00</u>		<u>241,645,342 97.79</u>	
LEEDS.			LONDONDERRY.		
Year ending September 30—			Year ending September 30—		
1873.....		\$4,868,277 08.00	1873.....	\$173,295	77.00
1874.....		3,602,104 55.00	1874.....	50,757	47.00
1875.....		3,626,535 43.00	1875.....	5,585	02.00
1876.....		2,135,376 68.00	1876.....	6,248	07.00
1877.....		1,704,327 58.00	1877.....	782	16.00
1878.....		1,411,370 59.00	1878.....	1,797	66.00
1879.....		1,556,965 96.00	1879.....	2,133	92.00
1880.....		3,615,338 09.00	1880.....	2,610	03.00
		<u>22,520,295 96.00</u>		<u>243,210 10.00</u>	
LEITH.			MANCHESTER.		
Year ending September 30—			Year ending September 30—		
1873.....		\$2,996,418 26.00	1873.....	\$21,978,696	48.00
1874.....		1,862,032 28.00	1874.....	19,339,295	72.00
1875.....		2,294,385 65.00	1875.....	18,139,681	27.00
1876.....		1,779,976 39.00	1876.....	10,141,092	94.00
1877.....		1,671,257 79.00	1877.....	9,876,768	09.00
1878.....		611,810 09.00	1878.....	8,176,886	53.00
1879.....		368,939 12.00	1879.....	8,814,443	92.00
1880.....		548,321 12.00	1880.....	15,236,381	28.00
		<u>12,133,140 70.00</u>		<u>111,703,246 23.00</u>	
LIVERPOOL.			NEWCASTLE-ON-TYNE.		
Year ending September 30—			Year ending September 30—		
1873.....		\$36,095,983 86.00	1873.....	\$3,259,780	96.00
1874.....		31,791,783 75.00	1874.....	1,179,818	65.00
1875.....		27,307,312 61.00	1875.....	835,181	00.00
1876.....		22,947,802 20.00	1876.....	839,007	29.00
1877.....		22,585,056 66.00	1877.....	640,836	16.00
1878.....		19,084,235 15.00	1877.....	*107,863	09.00
1879.....		23,062,247 11.00	1878.....	793,289	86.00
1880.....		42,589,566 16.00	1879.....	1,018,306	44.00
		<u>225,463,987 50.00</u>	1880.....	2,328,551	69.00
				<u>11,002,635 14.00</u>	

\* These figures represent the amount of exports from the Newcastle agencies not embodied in the consular report of 1877.

*Statement showing value of declared exports from the various consular districts of the United Kingdom of Great Britain and Ireland to the United States, &c.—Continued.*

NOTTINGHAM.		1877.....	5,720,331 20.00
Year ending September 30—		1878.....	2,140,443 49.00
1873.....	} Hitherto an agency of the Sheffield consulate.	1879.....	2,723,943 18.00
1874.....		1880.....	5,189,692 84.00
1875.....			<u>54,704,978 80.00</u>
1876.....			
1877.....			
1878.....			
1879.....			
1880.....			
			<u>14,621,246 29.00</u>
PLYMOUTH.		SOUTHAMPTON.	
Year ending September 30—		Year ending September 30—	
1873.....	\$37,594 90.00	1873.....	\$39,774 58.00
1874.....	22,038 70.00	1874.....	17,662 67.00
1875.....	4,980 56.00	1875.....	9,786 58.00
1876.....	1,620 26.00	1876.....	20,653 69.00
1877.....	21,071 69.00	1877.....	
1878.....	21,473 92.20	1878.....	*44,536 28.00
1879.....	10,611 34.00	1879.....	64,189 22.00
1880.....	38,154 94.00	1880.....	34,532 49.00
	<u>157,546 31.20</u>		<u>231,135 51.00</u>
SHEFFIELD.		TUNSTALL.	
Year ending September 30—		Year ending September 30—	
1873.....	\$14,197,614 72.00	1873.....	\$4,211,584 33.45
1874.....	11,309,037 51.00	1874.....	2,913,201 94.65
1875.....	7,725,718 08.00	1875.....	2,722,526 55.55
1876.....	5,698,197 78.00	1876.....	2,568,707 12.00
		1877.....	2,428,483 17.00
		1878.....	2,604,681 77.00
		1879.....	2,687,476 73.00
		1880.....	3,703,844 73.00
			<u>23,840,506 35.65</u>

## SUMMARY.

Gross total for the year ending September 30—

1873 .....	\$177,006,478 72.49
1874 .....	143,819,084 59.17
1875 .....	125,477,808 06.21
1876 .....	94,893,660 25.54
1877 .....	{ \$94,552,132 21.75
	{ †107,863 09.00
	<u>94,659,995 30.75</u>
1878 .....	82,760,380 46.76
1879 .....	98,479,994 32.08
1880 .....	191,973,290 22.13

Gross total for the eight years ending September 30, 1880.. 1,009,070,691 95.13

\* This amount represents the exports for the September quarter of 1878. Southampton having only at the commencement of that quarter been erected into a consulate, the four quarters of the year 1877 and the first three quarters of 1878 were embodied in the returns of the consulate-general at London, of which Southampton was during that period an agency.

† These figures represent the amount of exports from the Newcastle agencies not embodied in the consular report of 1877.

## RECAPITULATION FOR THE EIGHT YEARS ENDING SEPTEMBER 30, 1880.

London .....	\$241,645,342 97.79	Cardiff .....	\$3,340,630 38.00
Liverpool .....	225,463,987 50.00	Dublin .....	6,367,241 22.00
Manchester .....	111,703,246 23.00	Dunfermline* .....	4,702,275 96.00
Bradford .....	79,260,356 42.00	Bristol .....	1,927,387 42.00
Belfast .....	58,312,487 16.00	Cork .....	865,649 98.00
Sheffield .....	54,704,978 80.00	Hull† .....	678,930 32.00
Glasgow .....	48,894,100 78.00	Falmouth .....	524,908 39.00
Dundee .....	48,056,971 95.00	Londonderry .....	243,210 10.00
Birmingham .....	33,676,699 71.49	Southampton .....	231,135 51.00
Tunstall .....	23,840,506 35.65	Gloucester‡ .....	195,880 38.00
Leeds .....	22,520,295 96.00	Plymouth .....	157,546 31.20
Nottingham* .....	14,621,246 29.00		
Leith .....	12,133,140 70.00		
Newcastle .....	11,002,635 14.00		
			<hr/>
			1,009,070,691 95.13

## RECAPITULATION FOR THE YEAR ENDING SEPTEMBER 30, 1880.

London .....	\$62,681,120 18.13	Cardiff .....	\$1,824,812 07.00
Liverpool .....	42,529,566 16.00	Dublin .....	1,029,415 77.00
Manchester .....	15,236,381 28.00	Leith .....	548,321 12.00
Bradford .....	10,731,646 49.00	Hull .....	547,247 23.00
Belfast .....	9,415,832 81.00	Cork .....	308,024 93.00
Glasgow .....	9,219,927 88.00	Gloucester .....	195,880 38.00
Dundee .....	8,224,285 20.00	Bristol .....	157,177 01.00
Nottingham .....	7,137,796 16.00	Falmouth .....	132,469 40.00
Sheffield .....	5,189,692 84.00	Plymouth .....	38,154 94.00
Birmingham .....	4,920,433 58.00	Southampton .....	34,532 49.00
Tunstall .....	3,703,844 73.00	Londonderry .....	2,610 03.00
Leeds .....	3,615,338 09.00		
Newcastle .....	2,238,551 69.00		
Dunfermline .....	2,160,227 76.00		
			<hr/>
			191,973,290 22.13

## AMERICAN MANUFACTURES IN ENGLAND.

## REPORT BY VICE-CONSUL DOYLE, OF MANCHESTER.

In my first annual report from Manchester I made the following recommendations: A good article is the best possible agent that American manufacturers can send out, and with a high order of merit in their productions, combined with low cost and wise methods in bringing them prominently into notice in English markets, there can be no reasonable doubt but that they will not only meet with popular favor, but in good time find large and profitable market here.

In the light of larger experience I can bear witness to the importance of this advice. There is a vast market in Great Britain for various kinds of American manufactures, especially for such as are chiefly made of wood; and to develop this market it is only necessary to make a careful study of the tastes and requirements of the people, and then furnish what popular taste demands. As a rule it will, as a matter of course, take time and patience to secure the adoption of American manufactures; but when a demand is once created it will largely increase when the article is accepted as suitable, reliable, and satisfactory.

\* These figures represent only the declared value of exports for the three years ending September 30, 1880, those for the previous years being embodied in the reports from Sheffield and Leith, of which consulates Nottingham and Dunfermline had been agencies.

† These figures represent only the declared value of exports for the two years ending September 30, 1880, those for the previous years being embodied in the reports from Leeds, of which consulate Hull has been an agency.

‡ These figures represent only the declared value of exports for the twelve months ending September 30, 1880, those for the previous years being embodied in the reports from Bristol, of which consulate Gloucester had been an agency.

Articles of inferior workmanship or material do great harm when sent to this market, for the reasons that competing home manufacturers not unnaturally seek an opportunity to point out their defects and enlarge upon their faults; and when it can be shown that they are deficient in strength or durability, a serious check is given to the introduction of really first-class productions. For this reason, even if no higher one is sought, the greatest care should be taken to fully test every article intended for a foreign market, and thus prevent fault-finding and prejudices on the part of foreign purchasers as far as possible.

To show how it works practically, a leaf out of my own experience will be in order. Having ordered a couple of dozen cans of prepared soup from a noted Boston caterer, which gave great satisfaction, I was requested to order a small supply for a couple of friends, to test the various kinds advertised. I did so with pleasure, but was greatly put out afterwards to learn that the soups turned out to be very inferior in quality; and, to use the expression of one of my friends, "they were shockingly weak and thin, evidently having been made where vegetables, chickens, mutton, &c., were scarce, and *water very abundant*." The opportunity which I tried to turn to good account, in the interest of an American manufacturer of "soups," failed utterly, simply because the article furnished was not first-class, as it was recommended to be. An A 1 article would have surely led to a large demand for the same from this section, where now it will be a long time before "American soups" will be favorably thought of in the influential circle I have in mind.

This little incident forcibly illustrates the point I have endeavored to impress upon our manufacturers in preparing articles for this market. *Cheapness* is not so much an object in English markets as *excellence*. Really first-class productions are sure to be used, providing the style is popular and the quality good. Former prejudices are gradually yielding to the evidences of real merit in many lines of American manufactures, and now the term "American" has largely ceased to convey the idea of "shoddy" in articles sent over here for sale, as was formerly the case to a great extent. The superior quality, taste, and adaptability of many of our manufactures render them most attractive, and the demand for our products will increase in a sure ratio with their excellence and perfection in this splendid market in the future.

JOHN T. DOYLE,  
*Vice-Consul.*

UNITED STATES CONSULATE,  
*Manchester, England.*

## DISTRIBUTION OF AMERICAN FARM PRODUCTS IN ENGLAND.

REPORT BY VICE-CONSUL DOYLE, OF MANCHESTER.

I have frequently called attention in my annual reports to the losses which fall on American producers through the imperfect way in which our farm products reach the English consumers. Only very recently a large cotton manufacturer informed me that he had just furnished a firm in his town with 300 pieces of cotton-cloth for making coverings for American hams; and his firm was one of several that supplied this material. These hams came from the United States, and on reaching England are done up in English style and sold as English hams at a sharp advance. This is done with our cheese as well. Then, too, the English system of supplying retail dealers should be carefully studied

and a more direct and comprehensive way of reaching these agencies should be adopted. Partnerships should be formed between American and English produce-dealers, much the same as English houses now combine with the foreign trade in many parts of the world for the supply and sale of manufactured goods of various kinds. The advantages to be derived from a proper system of distributing our farm products in English markets cannot well be overestimated. Under right management and with cheap and quick transit, which the excellent steamship lines between American and English ports now furnish, our surplus food supplies could be placed in the hands of retail and central distributing dealers without the delay and expense now named by "middlemen," and thus secure to our people a largely increased price.

At present the hap-hazard way of disposing of perishable articles, such as apples, potatoes, &c., in England renders their shipment to this country more of a hazardous venture than a safe business operation. Such shipments might and should be made under better methods of disposing of them after they arrive. Now these articles of food are largely sold at auction at the port of arrival, and the result is that they vary in price from day to day out of all proportion to the needs and natural demands of English consumers.

To illustrate: At a sale of apples in Liverpool, early in November, a lot of over 1,000 barrels, sold to various dealers, averaged about *eight* shillings per barrel. Two days later, another lot of 800 barrels, precisely similar in quality and condition, brought *twelve* shillings per barrel, or a difference of *about one dollar per barrel*! The cause of this range of prices was the result of a forced sale by auction; whereas, had the apples been consigned to some one in England with a proper trade connection and an interest in seeing them well placed, no such loss would have fallen to the shipper in New York. The importance of this subject leads me to constantly press it upon the attention of American dealers, because there is urgent need of reform in this direction.

Much of the above will apply to our butter and cheese sent to this market. There should be no difficulty in making butter in the United States equal to the English, and if this were done a much higher price and a never-failing market for it could be secured here. At present American butter is classed low in English markets. The London Times, in recently reviewing Mr. Clare S. Reed's report upon the agricultural prospects, &c., in the United States, editorially declared that "American butter does not even enter into competition with the produce of our dairies." The butter-makers in America are alone to blame for this state of things, and it stands them in hand to study well the tastes and requirements of consumers in this country. There has been a decided improvement in the quality of American butter within the past two years, and the trade here has been quick to note and take advantage of this fact. A prime article will always command a good market, while a poor quality is a drag invariably. Fresh-made and lightly-salted butter is what this country demands. To meet this trade great care should be taken to work the butter dry, and make it sweet and firm. The butter-makers in England are specially trained and well paid for their work. It is a "trade," almost, in itself, and a first-class butter-maker is never out of employment. Our cheese ranks well and is winning new victories every year, and for the reason that our system of manufacturing it has been greatly improved latterly. It is to be hoped that a similar system of manufacturing butter will bring about a like desirable result. American butter and cheese producers need have no fears about securing an excellent market for their surplus stock in Great Britain, provid-

ing the quality is equal to that of the best English dairies. It is a question, 1st, of *excellence in quality*, and, 2d, *an improvement in the methods of promptly supplying English retail dealers*.

JOHN T. DOYLE,  
Vice-Consul.

UNITED STATES CONSULATE,  
*Manchester, England.*

### BRITISH VS. AMERICAN CATTLE.

REPORT BY CONSUL JONES, OF NEWCASTLE-UPON-TYNE.

The foot-and-mouth disease has broken out in several localities within this consular district. Irresponsible paragraphs have appeared in the newspapers from time to time within the last fortnight, but I have deemed it best to wait for authoritative declaration upon the subject before communicating with the Department. Moreover, the United States cattle trade cannot be influenced by the disease, since no cattle are exported from the Tyne to the United States, and since cattle imported from the United States to this port are slaughtered upon landing.

The infected districts have been defined by the Privy Council, and were announced in the London Gazette last evening. They are as follows:

1. An area comprising the borough of Newcastle-upon-Tyne, except the lands and buildings approved by the Privy Council for the landing or lairage of foreign animals.

2. An area comprising the township of Brompton, and the adjoining townships of Deighton, Lazenby, Hutton, Bomville, Kirby, Sigston, West Harsley, Northallerton, and Winton, with Stank and Hallikeld.

3. An area comprising the township of Malthy and the adjoining townships of Hilton, Stainton, and Ingleby-Barwick.

4. An area comprising the township of Cargo, Fleet, Ormesby, and the adjoining townships of Normanby, Marton, Upsall, and Nunthorpe in the North Riding.

5. An area comprising the township of Lofthoust and the adjoining townships of Easington, Liverton, Skinningrove, and Kilton.

6. An area comprising the township of Thirsk, and the adjoining townships of Iawerby, Bagby, South Kilvinton, Thornton-le-Street, Carlton, Miniott, and Newcham, and Breckenbrough.

It is satisfactory to be able to report that American cattle are gaining favor in this market. An extract from the Newcastle Daily Journal market report of yesterday, speaking on this point, is herewith transmitted.

EVAN R. JONES,  
Consul.

UNITED STATES CONSULATE,  
*Newcastle-upon-Tyne May 5, 1881.*

[From the Newcastle Daily Journal.]

#### HEALTHY STATE OF AMERICAN CATTLE.

In the year 1879 340 head of cattle arrived and were slaughtered and dressed at Tyne dock, being the first lot imported into the Tyne. In 1880 2,042 head arrived, extending from April 12 to October 18, and from fifteen different cargoes the Jews of Newcastle-upon-Tyne were supplied, being decidedly the prime quality of beef that comes to hand at that season of the year. And we may here state that the Jews are the most particular race of people upon the face of the earth regarding the wholesome state of their butcher meat. They kill every living thing that they consume

themselves in their own peculiar way, and do not leave any doubt or suspicion to be wrangled over or disputed by veterinary surgeons or privy council inspectors, as the priest takes the life of the animal and strictly superintends the dressing until the skirts are cut; then he examines the lungs, and should they be in the least adherent to the ribs, it is pronounced not "cosher," that is to say, unfit for human food; "cosher" being a Hebrew word meaning sound. During the whole of the arrivals there has not been one unsound animal among them.

## THE EARTHENWARE TRADE OF TUNSTALL.

*REPORT BY CONSUL LANE.*

### EXPORTS OF POTTERY TO THE UNITED STATES.

In submitting my returns for the quarter ending March 31, 1881, I deem it proper to remark briefly upon the condition of the earthenware trade of the district. The shipments to the United States, so far, hold their own with the previous year, being \$55,955 in excess of those for the first quarter of 1880. And hence, the depression which the other staple industries of England are now feeling has measurably exempted the "Potteries," the popular designation for this locality. It is, however, noticeable that aside from the American market the receipt of orders is not calculated to afford much encouragement, and on the whole the trade cannot be said to be any better than, if as good as, it was a year ago.

### ENGLISH AND AMERICAN HARVESTS.

In my annual report, in October last, I referred to the hopes with which a reasonably fair harvest had inspired the manufacturers in the direction of an improved home trade. These hopes, in accordance with the apprehensions I then expressed, have not been realized; and while the yield per acre of wheat sown was last year only inconsiderably below the average, and was understood to give promise of a general trade revival, I hear the season of 1880 now classed with the unfortunate ones which preceded it. While it is generally conceded that under an equality of natural conditions, what are generally known as harvest products, cannot be supplied to the English consumer as cheaply by the English as the American farmer, it does not seem to be generally understood that an industry which cannot yield a profit cannot restore the vigor of other industries; and so the hope of a better home trade still lies in the hope of a good harvest.

I cannot help thinking that under a continuance of the present difference between the system of English and American land tenures, farming, and taxation the trouble is beyond the remedy of fair weather.

### LABOR ARBITRATION.

In my annual report I alluded to the then approaching arbitration, and through which the working potters sought to secure an increase of wages. The result was a decision averse to the workmen and a continuance of the then existing scale of wages, whereupon the workmen, while abiding by the award, resolved to withdraw from the board of arbitration; which of course meant a strike unless their next demand should be considered.

Negotiations and proceedings are now pending as to whether the arbi-

tration system shall be broken up or not. If the system is discontinued, it will unquestionably operate to the injury of both the manufacturers and employés.

#### ENGLISH POTTERS EMIGRATING TO THE UNITED STATES.

What, however, is of more immediate interest, particularly to those engaged in developing the potting industry in the United States, is the fact that notwithstanding the comparatively firm foothold which the English potters still retain in markets of the United States, they have not escaped the contagion of the emigration fever now so prevalent throughout Europe, and I am glad to be able to say that a good class of people, more or less skilled in the various grades of the potter's handiwork, is rapidly contributing to the tide of emigration now flowing to the United States. Many of these people, who own the houses they live in—a thing not very common with working people here—have placed their property in the hands of solicitors, to be sold, in order to take all their worldly effects with them to America.

One manufacturer at a meeting of the board of arbitration recently stated that there was danger of such an exodus of workmen to America as to embarrass the demands of the trade. This fear is probably groundless and is not felt to any observable extent among the manufacturers. As will readily be understood, many who have heretofore gone were not of the most thifty or desirable class, but there is now such a prevalent inclination among the best workmen to go to America, that the fact cannot fail to be interesting and perhaps useful to American manufacturers.

#### ART SCHOOLS WANTED IN THE UNITED STATES.

These remarks do not refer to the high grades of art connected with the manufacture of pottery. The best designers and painters are generally satisfied with the large prices their work commands here. It is to be regretted there is not in the United States any system of art schools similar to that in operation in England, and which among other advantages has been so fruitful of results in the production of artistic pottery. Nearly every large town in England has its school of arts, with competent instructors, where for a very small sum any boy or girl can have an art education of sufficient thoroughness to determine whether or not it should become his or her profession. In this way the natural artists are discovered, and their work becomes at least a powerful auxiliary to the potting industry in the limitless forms of shapes and decorations of which the materials are susceptible. It is to be hoped there is a future for this work in the United States that may give it a competitive place at least approaching the rivalry existing in other industries. The house must be built slowly, but it would be gratifying to see it well commenced.

EDWARD E. LANE,  
*Consul.*

UNITED STATES CONSULATE,  
*Tunstall, 1881.*

**AMERICAN PRODUCTS IN HOLLAND.***REPORT OF CONSUL ECKSTEIN, OF AMSTERDAM.*

Under date of February 28 last I transmitted a report upon the imports of, and trade in breadstuffs, cotton, petroleum, and tobacco, at Amsterdam and in Holland, during the year 1880, which I hereby supplement by briefly reporting upon transactions in the articles of bacon and lard, oleomargarine and timber, &c., for same period.

The report is not quite as full and complete as I wished to make it, but based as it is upon information received from purely private sources, the obtaining of which, of a correct and trustworthy character, is so very difficult a task, I can do no better for the present.

**BACON AND LARD.**

In my annual report for 1880 I furnished information concerning operations in bacon and lard up to June 30 of that year. The trade of the second half of the year, or from July 1 to December 31, commenced under very favorable auspices. Short middles, summer-cured, which sold at 45 francs per 100 kilograms in the beginning of July, soon advanced to 46½ francs. A still more decided rise occurred in the price of short middles, winter-cured, which about this time was eagerly bought up, and about the middle of August brought as much as 51 francs per 100 kilograms.

At the opening of the new packing season, in November, there was a fair demand for new bacon. Prices opened at 48½ francs per 100 kilograms for short middles, but declined to 46½ francs in December, on account of large supplies.

*Backs.*—This “cut” being offered by American packers in the beginning of the summer season at proportionally lower prices than short middles, a trade in them at once sprung up, and as the quality of the first imports proved very good, a large and remunerative business in this “cut” has become established here. Prices of fat backs advanced from July to the middle of September at about the following rate: “Backs,” averaging 26 pounds, from 48, 49, to 55½ francs per 100 kilograms; averaging 30 pounds, from 49 to 56 francs per 100 kilograms; averaging 35 pounds, from 52 to 58 francs per 100 kilograms.

Contracts for large quantities made in October for winter-cured December shipments were closed at about the following rates: “Backs,” averaging 28 to 30 pounds, from 49 to 53 francs per 100 kilograms; averaging 35 pounds, from 52 to 54 francs per 100 kilograms; averaging 40 pounds, from 53 to 55 francs per 100 kilograms.

In respect to the trade in these articles, I had occasion to speak in my last report of certain complaints from parties here interested in the business against packers and exporters in the United States; it is therefore with peculiar satisfaction that I state that during the period covered by this report hardly any irregularities or unfairness causing disappointment or loss to importers have occurred. The trade has generally been agreeable and satisfactory, and Boston packers are said to have secured in this market an especially high reputation on account of delivering usually a very nice product, and having fulfilled all engagements so promptly.

The quality of all sorts of bacon is said to have been good, and well preserved. Nor has the trade been, or is, in anywise influenced or affected by any reports concerning excessive hog disease in the United States. I regret to have been unable to procure any information as to the quantity or value of bacon, ham, &c., imported into this port or country from the United States during the six months ending December 31, 1880. I am, however, prepared to state that the imports for that period of time were considerably in excess of those for the corresponding period of 1879, and that the imports have been on the increase for several years last past, and are increasing year by year.

*Lard.*—The leading brand, "Wilcox's," was quoted at 23½ francs per 50 kilograms in July, at which time the supply in this market was very limited, and as about at that time the price for the article advanced in "America," it soon rose here from 24 francs in latter part of July to 26½ francs, closing at 27 francs at the end of the year.

#### OLEOMARGARINE.

This article commenced being imported into this country from the United States in large quantities about the year 1874. The manufacture of artificial butter or oleomargarine began to be engaged in about that time, and factories sprang up in different parts of the country, so that at the beginning of 1878 there were about twenty of them. The business proving remarkably profitable to nearly all in any way interested in it, caused an increase in the establishment of new factories to such an extent that in 1880 there were, I am credibly informed, fully one hundred of them.

The manufacture of artificial butter—butterine—was up to 1880 carried on here with almost unvarying success, pecuniarily speaking, the demand for the article hardly ever flagging, England being uniformly the principal customer. During the year 1880 the imports of oleomargarine into this country from the United States, direct and indirect, are said to have been much larger than during any previous year, but to obtain the actual, correct figures representing the quantity imported I found impossible. Approximate estimates furnished me by parties interested in the trade, and well conversant therewith, would show it to have been from about 75,000 tierces, or about 11,000 tons weight, all the way to 120,000 tierces, or about 15,000 tons weight. The prices on the case, of the brand Tobey & Booth, varied during the year, per 100 kilograms, as shown in the following statement:

	Francs.
January .....	104 to 110
February .....	97 to 69
March .....	65 to 66
April .....	69 to 76
May .....	83 to 78
June .....	70 to 71
July .....	77 to 88
August .....	90 to 98
September .....	102 to 108
October .....	109
November .....	106 to 88
December .....	88 to 86

As will be noticed, there have been frequent and great changes in the prices during the year, the result of which was that heavy losses were sustained. This unsteadiness in the prices of the article, which, to any such extent, was formerly unknown, came about from a variety of causes,

for some of which certain American manufacturers and exporters, as explained to me, appear to be answerable, as they might have prevented them. Those who during the year brought into the markets of this country large quantities of the inferior article suffered, it seems, the severest losses.

It should be observed in this connection, that the low-grade goods come more especially in competition with the imports of the article from other countries—France, Austria, and Russia—where the good and best qualities are, up to the present, not produced to any noteworthy extent.

Whether the manufacture in the United States of a poor article of oleomargarine ever has been, or is, a remunerative business I am unable and unprepared to say, but, judging from last year's and the present condition of the market in this country, I feel justified in expressing the opinion that the bringing here of large quantities of it at any time is not alone certain to entail severe loss upon shippers or consignors, but, indirectly, does great injury to the trade in the article generally.

Hitherto it has been, as I am informed, the very general practice to close transactions, or to buy and sell the article upon the faith of inspection certificates from American inspectors. This practice, it is claimed, has in the past, and particularly during the year 1880, led to many disappointments, vexations, and losses, as the quality of the goods proved frequently inferior than represented, called for, and expected in accordance with such certificates.

Recently there have been a number of public sales of entire and large lots, and intending purchasers were given the opportunity to examine and inspect as many tierces of any lot as they desired prior to purchasing. I hear that certain parties here, who are receiving consignments of the article, intend, in future, to sell it only after arrival, and at public sale. I report this fact, as it appears to me deserving of the attention and consideration of all interested in the manufacture and export trade of oleomargarine in the United States.

#### TIMBER.

Importers and dealers in timber and lumber of all kinds, say that their trade was very satisfactory in 1880. There has been a fair and even demand with moderate imports during the year, causing prices to rule sufficiently low to suit consumers, leaving at the same time a good margin for profits to importers and dealers.

The imports from the United States consisted, during the year, of 2,486 pitch-pine and oak logs, dressed, and 348,221 pipe, hogshead, and barrel staves. All of the logs, as well as all the staves, were disposed of during the year. American oak staves are in very good demand here, and it would appear that direct shipments of larger quantities than have hitherto been brought to this market would be justified.

#### INHERITANCES.

I append to this report a statement showing the number of inheritances on which succession duties were paid during the year 1880, their aggregate amount, &c., believing it may prove interesting, as it may be considered to indicate, to a certain extent, the financial condition or wealth of the Netherlands.

In 1880 succession duty was paid on 9,508 inheritances, with an aggregate amount of 299,600,000 florins assets, subject to liabilities amounting to 29,400,000 florins.

Of the said assets, 208,700,000 florins were inherited by lineal descendants, and by husbands and wives with issue; 2,900,000 florins by lineal ancestors; and 88,000,000 florins by collateral relations and others.

The said assets were composed as follows :

	Florins.
Real property .....	112, 000, 000
Claims .....	63, 000, 000
Dutch securities .....	36, 000, 000
Foreign securities .....	62, 000, 000
Ships, merchandise, cattle .....	3, 000, 000
Ready money .....	8, 000, 000
Other personal property .....	13, 000, 000
Of the said 9,508 inheritances —	
1,350 were less than .....	1, 000
3,030 were between .....	1, 000 and 5, 000
1,742 were between .....	5, 000 and 10, 000
2,258 were between .....	10, 000 and 40, 000
716 were between .....	40, 000 and 100, 000
351 were between .....	100, 000 and 500, 000
61 were more than .....	500, 000

D. ECKSTEIN,  
Consul.

UNITED STATES CONSULATE,  
Amsterdam, May 15, 1881.

## THE CROPS OF HOLLAND—1880 and 1881.

REPORT BY CONSUL ECKSTEIN, OF AMSTERDAM.

If the year 1879 proved to be an unfavorable one for the husbandman such cannot be said of 1880. Especially for agriculture, it was in many respects a good year; neither had cattle-breeders any reason to complain; but for the horticulturist and kitchen-gardener it was again unprofitable.

*Wheat.*—Both winter and summer wheat stood well in the fields. The first yielded an average crop of 32 hectoliters per hectare (about 35½ bushels per acre), and the latter more than 20 hectoliters per hectare (about 22½ bushels per acre).

*Rye.*—Winter rye also succeeded well, was got in quite dry, and produced 36 hectoliters per hectare (40 bushels per acre). Summer rye, cultivated in a sandy soil, had likewise a fair success, and yielded about 20 hectoliters per hectare (22½ bushels per acre).

*Barley.*—On account of the drought, winter barley did not get on well in the spring, but recovered itself later, thereby causing an inequality of growth and maturity, as well as a deficiency in color. An average crop of 46 hectoliters per hectare (rather more than 51 bushels per acre) was got in. Summer barley was but middling and did not yield more than 36 hectoliters per hectare (40 bushels per acre).

*Oats.*—This grain likewise suffered a good deal from the drought in some places, and there produced an average crop of 46 hectoliters per hectare (rather more than 51 bushels per acre), but yielded about 70 hectoliters per hectare (nearly 78 bushels per acre) in districts where drought did not prevail.

*Pease* succeeded remarkably well, the quality being excellent. From 20 to 30 hectoliters per hectare (22½ to 33½ bushels per acre) were harvested.

*Horse beans.*—Not for a number of years had these beans been raised so white as this season; the quantity, too, was most satisfactory, amounting to from 26 to 35 hectoliters per hectare (from 29 to 39 bushels per acre).

*Winter rapeseed* had suffered a good deal from the inclement weather and continued backward through the ungenial spring, so that the crop was in most places but small, not averaging more than 20 hectoliters per hectare (22½ bushels per acre).

*Flax* in general succeeded well, and fetched, on an average, 360 florins per hectare (about \$58 per acre).

*Caraway seed.*—The cultivation of this seed is increasing; the crop gathered in 1880 was estimated at 1,200 kilograms per hectare (nearly 1,070 pounds per acre).

*Canary seed.*—The quality was good, and the average produce 25 hectoliters per hectare (nearly 28 bushels per acre).

*Potatoes*, which are also cultivated by many horticulturists, gave much reason for complaint. They suffered a good deal from night frost, and in many places the potato disease prevailed to such a degree that the potato did not come to full growth and was unfit for food. The late sorts gave somewhat better results than the early crops.

*Beet-roots* had a promising appearance in the field and yielded, on an average, 40,000 kilograms per hectare (26,720 pounds per acre). The early frost in the autumn took many cultivators by surprise, so that many beet-roots were frozen.

*Grass and clover fields* yielded a moderate crop, although the hay produced was not plentiful, and in some places of inferior quality.

*Market gardens* had a great deal to suffer from strong winds in the summer, in consequence of which French beans were a failure. The best vegetable in 1880 was the cauliflower. The cultivation of green cucumbers is greatly on the increase.

*Fruit* in general gave no reason for complaint. There was a sufficient quantity of apples and pears, whilst cherries, peaches, plums, currents, &c., were pretty abundant and fetched good prices. Grapes were, however, deficient, the quantity produced below the average, and prices low.

*Horses* were healthy; the trade in horses of from 4 to 6 years old was lively, but for the rest only middling.

*Horned cattle.*—Owing to the stringent and efficient measures taken by the government against the pulmonary disease amongst cattle, that disease has almost totally disappeared. It was only here and there that sporadic cases occurred, and the diseased animals were killed at once without any exception. The mouth disease still broke out occasionally, but its spread was effectually checked by the efficient measures taken and stringently enforced by the government. The trade both in milch cows and fattened cattle was very brisk, and good prices were made throughout the year.

*Sheep.*—Sheep farmers had not a very profitable year. Not that there was much disease prevailing, only a few cases of the rot, but the sheep would not grow, so that they were light in weight and the market-price low.

*Pigs.*—The well-known pig disease again occurred in some places, although not so frequently as in preceding years. Market-prices were middling.

*Cheese and butter.*—The prices of butter and cheese were low in the early part of the year 1880. At a later period there was an improvement, so that in the autumn even high prices could be obtained. The quality of dairy produce was very satisfactory.

## PROSPECTS OF THE CROP IN 1881.

The winter of 1880-'81 was again a very severe one. Rime was of frequent occurrence and did a great deal of harm, particularly in the month of March, when the icicles grew so large and heavy through the prevailing severe cold wind, that many strong branches of trees actually broke off, in consequence of which many of the finest fruit trees suffered severely, so that only a scanty fruit crop can be expected. Besides which, much of the young wood of fruit trees and vines did not ripen sufficiently in 1880, and were therefore greatly injured by the frost.

The snow, which covered the ground for a considerable time and particularly during the most severe frosts, protected the winter grain, which therefore makes a promising appearance in the field. In some places, however, complaints are heard of a scanty produce, particularly of rape-seed; but if the weather continues favorable it is hoped that the grain will swell out and eventually yield a satisfactory crop. Summer grain bids fair to yield more than an average crop.

The early potatoes, which were already making a luxuriant show in the fields, have suffered a good deal from night frost in the month of May.

The meadows have likewise suffered considerably from the inclement winter, so that grass is scanty, and the cattle were not turned out till late in season.

The health of both horses and cattle is satisfactory, although in some places cases of mouth disease occur. As the measures prescribed by government are, however, stringently carried out, there is not much fear of the disease spreading. Both young and fat cows were lower in price in the spring, but for milch cows high prices were paid.

D. ECKSTEIN,  
*Consul.*

UNITED STATES CONSULATE,  
*Amsterdam, June 14, 1881.*

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INUNDATIONS IN HOLLAND.

REPORT BY CONSUL ECKSTEIN, OF AMSTERDAM.

After midnight of the 29th to the 30th of December, 1880, a break occurred in one of the largest dikes of the province, named Heidyk, near the village called Nienwuyk, and in a very few hours and before day-break of the following day over twenty towns and villages and the country surrounding them stood several feet deep under water.

It was a dark, cold, and stormy night, and, no doubt, many lives would have been lost had not the people all through that section of country been forewarned of the existing danger. Unmistakable indications of some serious defect in the dike were observed near by where it finally caved in some twelve or fifteen hours before this happened. Consequently a close watch was kept along the dike in the neighborhood, and steps were immediately taken to strengthen it at such places where it was supposed, and appeared to be, undermined, but all efforts to prevent the calamity proved fruitless. Hundreds of families were driven from their homes, which had suddenly become unsafe and uninhabitable, and were obliged to flee for temporary protection against the relentless element to higher ground. Many of them narrowly escaped

with their lives, and many acts of heroism have been displayed, and are recorded in connection with their rescue.

Great hardship and suffering ensued, but as soon as the news of the disaster reached the neighboring cities, not a moment was lost, and relief in the form of shelter, food, clothing, and fuel was dispatched to the sufferers in great abundance. Later on collections in money were taken up all over the country, and over 500,000 guilders were raised by voluntary contributions in a short time. At a fair held at Amsterdam for their benefit, 50,000 guilders were realized in a single evening. The treasurer of the committee, organized in this city for the purpose of receiving contributions, informs me that the total loss sustained through the inundation is not supposed to exceed the amount of 500,000 guilders, and that an equal amount has already been paid over to the various parties who lost property of any kind, or who had their lands injured, &c.

The work of restoration and repairs began as soon as the new dike was constructed, filling up the gap made by the break, and the ice, which covered the entire marsh for miles around, was nearly out of the way. The damage is by this time to a great extent repaired, and what principally remains to be done is to remove large masses of sand, many thousands of cubic feet of which still cover some of the best lands.

The province of Limburg also suffered from inundations last winter, but not as severely as North Brabant. There it was not in consequence of a break in any of the dikes, but was occasioned by the overflow of some of them.

D. ECKSTEIN,  
*Consul.*

UNITED STATES CONSULATE,  
*Amsterdam, June 14, 1881.*

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## CARRYING TRADE BETWEEN LEGHORN AND THE UNITED STATES

*REPORT BY CONSUL RICE.*

It is with deep regret that I have to inform the Department that not one American merchant vessel has entered or cleared from this port during the quarter ending March 31, 1881, and, what is worse, none are advertised to arrive. The whole carrying trade between this port and the United States has been confined to foreign ships. The figures are appalling. Twenty-eight foreign steamers have cleared from Leghorn, during the said quarter for home ports, eleven for New York and Boston, and seventeen for New York, Baltimore, and Philadelphia. Several foreign sailing vessels have also sailed hence for New York, Baltimore, and Philadelphia, with assorted cargoes. English steamers have the monopoly, and Italian or other sailing vessels are always chartered in preference to our own ships, as they can be obtained at a much lower rate.

It were needless for me to repeat here the reasons for this unfortunate state of things or to suggest remedies, as the subject has already been sufficiently and ably treated by many of my colleagues; but it is evident that, unless Congress takes the interests of our ship-owners into serious consideration, our Mercantile Marine will soon cease to exist, and our flag will be rarely seen in the Mediterranean or elsewhere. In times past it was the exception for two or three American vessels not to be loading

in this port, whereas now it is a rare sight to see one at all, and when it is taken into consideration that last year the aggregate value of exports from Leghorn to the United States was as follows—

Leghorn proper.....	\$1,105,742 15
Rome, via Leghorn.....	73,768 00
Florence.....	498,724 38
Carrara.....	610,405 95

Grand total.....	\$2,288,640 48
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nearly the whole of which was conveyed in foreign bottoms, one can easily appreciate the enormous annual loss which is sustained by our Merchant Marine at this port alone; Leghorn being by no means one of the principal ports of exports to the United States. Similar complaints appear to be rife in other ports.

All the freight which formerly passed in a great measure through the hands of American ship-owners is now irrevocably taken away from them, and they are now powerless to compete with the carrying trade of the world. If the government would only give American ships a chance, much could be regained; the question is purely one of political economy. Our vessels cannot accept the same rates as foreigners.

I have to draw the attention of the Department to the fact that, although the aggregate of exports from this port to the United States during the quarter just ended is in excess of the same last year in the amount of \$52,490,97, the main exports from Leghorn proper have decreased in almost every item. The reason of the gross increase lies in the considerable shipments that have been effected of iron ore and pig-iron from the island of Elba, amounting to \$79,969.62; none of which grade of merchandise was exported during the first three months of last year. On the other hand, the falling-off is mainly due to the legislation of the Italian Government in reference to its anticipated financial policy, which has had the effect of causing the premium on gold to fall from 12 to about 2 per cent., so that shippers were absolutely unable to dispatch goods at the rates quoted a month or so before. This subject has been referred to in previous correspondence.

There has also been considerable dissatisfaction among the marble exporters, who complain at being compelled to invoice at higher than cost price, the trouble they have experienced in the United States custom-house relative to the market value, and the low rates ruling recently in America.

The marble question has long been a most annoying one both to the Treasury Department and the importers, and requires immediate legislation, but as I presume my colleague of Carrara has fully notified the Department on the subject, and as it does not come under my official jurisdiction or personal supervision it would be needless to give my views. The marble business is almost entirely confined to his office, and he is therefore better able to form an opinion than myself.

WILLIAM T. RICE,  
*Consul.*

UNITED STATES CONSULATE,  
*Leghorn, 1881.*

## COMMERCIAL LAWS AND USAGES OF ITALY.

**REPORT BY CONSUL CRAIN, OF MILAN, ON THE ADMINISTRATION OF JUSTICE IN ITALY AND ITS RELATION TO INTERNATIONAL TRADE: DISPATCH OF BUSINESS, MODE OF PROCEEDURE, AND EXPENSES IN THE COURTS; PROVISIONAL REMEDIES; REGULATIONS AS TO MERCHANTS; INSOLVENT AND BANKRUPTCY LAWS, ETC.**

In a series of dispatches to the department, I have laid before the American people the industries of Italy, shown her wants, and the opportunities they present to our merchants. The causes which hinder or promote trade and determine its channels are the peculiar study of the consul. Law imposes this duty, and his usefulness depends upon the fidelity with which he discharges it.

Differences of language and customs, non-intercourse, and ignorance of mutual wants are obvious barriers to trade. Unrecognized and undiscussed is the more formidable obstacle of darkness as to foreign commercial law and the degree of protection which it affords. Impressed with the importance of the subject, I have, as the representative of our people at the commercial metropolis of Italy, devoted to it much study, and would now submit as germane to international trade some facts touching the administration of justice in Italy, the provisions of law for the collection of debts, and those regulations for the conduct of merchants framed for security in commercial transactions.

The courts of the conciliatori, pretori, tribunali civili, and tribunali commerciali have original jurisdiction in matters arising on contract. The corte d'appello and the corte di cassazione have only appellate jurisdiction.

## THE CONCILIATORI.

These courts were an ancient institution of the Neapolitan provinces, and were extended to all Italy by the legislative unification of 1865. These are, as respects jurisdiction, the first or lowest grade of courts, taking cognizance by right only, when the sum in controversy is 30 lire or less. They act, however, as arbitrators in the adjustment of claims, when asked, whatever may be the sum involved. Their decision, when the sum is 30 lire or under, is binding in law; but if the claim is more, the act of conciliation has only the force of a private writing recognized in court.

Within the limit as to amount above stated, they can adjudicate in all personal actions (divided here into civil and commercial, according to the status of the parties and subject matter) relative to chattels, or for the recovery of rent, where the same for the whole term of the letting does not exceed 30 lire. They can take no cognizance of cases involving questions of tax, direct or indirect, which are reserved exclusively for the decision of the tribunali civili.

The labors of the conciliatori have increased from year to year, proving the high degree of confidence in which this modest magistracy is held by the people. The controversies settled by the conciliatori *in limini litis* rose from 65,273 in 1872 to 122,374 in 1878.

Cases are usually disposed of within one week from the issuing of citations, and with no other expense than the paper officially stamped.

## THE PRETORI.

These courts, established throughout the kingdom, have jurisdiction in all actions civil and commercial where the amount in controversy does not exceed 1,500 lire and is not less than 30 lire. They have criminal jurisdiction, and are also clothed with power of arbitration or conciliation when invoked for the purpose.

The mode of proceeding here is similar to that in the court of conciliatori. On the return of the citation, the plaintiff states the facts constituting his cause of action, and the defendant the grounds of his defense, verbally, which is reduced to writing, read to the parties, and subscribed by the pretors and clerk. The pretors are enjoined by the codice di procedura civili to attempt at this stage an amicable settlement. If successful, they certify the result in writing, which is also signed by the parties. If unsuccessful, the cause can be only once adjourned, when the trial must proceed. Usually the trial takes place within ten days from the joining of issue.

The pretors impose upon the losing party such costs as they may think proper, having regard to his condition and the nature of the action. Appeals must be taken within thirty days from the rendition of the judgment in commercial cases, and within sixty in others.

These appeals are speedily heard in the tribunali civili e commerciali. The salutary effect of the conciliatory function of these courts is shown in the remarkable fact that in the year 1875, out of a total of 196,468 cases, 26,570 were amicably solved.

## THE TRIBUNALI CIVILI E COMMERCIALI.

These courts are established throughout the kingdom, and number 190, some of which are invested with both civil and commercial jurisdiction.

The tribunali civili have original cognizance in all civil suits where the amount involved exceeds 1,500 lire, save in suits begun before the pretori during the year in which the cause of action arose, in the following cases:

- 1st. In suits for waste of city and provincial funds, damage to hedges and inclosures, plants, trees, and fruits;
- 2d. In possessory actions;
- 3d. In cases of threatened injuries;
- 4th. In suits for the enforcement of laws or local usages regulating the planting of trees and hedges;
- 5th. In suits in eviction on determination of leases.

They have appellate jurisdiction in all causes in civil matters decided in the first instance by pretors or by arbitrators who have exercised in conformity with the code pretorial powers, save (1) when the said arbitrators have been authorized to compromise amicably the suit; (2) when they have pronounced sentence in appellate capacity; (3) when the parties before them have waived an appeal; (4) when the case would have been within the jurisdiction of the conciliatori.

The tribunali commerciali exercise a jurisdiction regulated by the codice di commercio and laws relating thereto. They adjudicate in the first instance in all commercial suits in which the amount in controversy exceeds 1,500 lire, and as a court of appeal in all like suits decided in the first instance by the pretori, or by arbitrators acting as pretors, limited by the exceptions before mentioned applicable to the appellate jurisdiction of the tribunali civili.

Only doctors of law preside as judges in the tribunali civili. In the

tribunali commerciali the presiding judge is a doctor of law, with whom are associated two lay judges selected from the body of merchants. In both courts the suit is begun by written citation, embodying the facts contained in the summons and declaration ordinarily used in the State courts of record in the United States. The defendant must answer within fifteen days, and subsequent counter-pleadings must be served within the same time. Appeals are to the corte d'appello, and must be taken within sixty days from rendition of judgment in civil cases, and within thirty in commercial. Here again it may be observed that suits are disposed of with commendable dispatch, so that even at this crowded center of business the calendars are ordinarily cleared within three months.

#### THE CORTE D' APPELLO.

There are twenty of these courts, not counting four detached sections. That held at Milan is composed of a president, two presidents of sections, and twenty-three consiglieri, the chancellor, and six vice-chancellors. For the transaction of business it is divided into three sections, viz:

Section 1 (for civil causes).—Held Mondays and Tuesdays for summary cases. Fridays and Saturdays for trial of issues of law.

Section 2 (for promiscuous business).—Held Mondays and Tuesdays for summary cases. Fridays and Saturdays for trial of issues of law.

Section 3 (for promiscuous business).—Held every week day for correctional appeals, Tuesdays for the hearing of incidental motions, and Thursdays for the chamber of council and commission for gratuitous protection. The appeals, whether partial or general, are quickly heard.

For the year 1875 there were 22,299 causes on the calendars of these courts. Of these 3,272 were withdrawn. In 5,289 cases the judgments below were confirmed, and in 4,907 modified in part or repealed.

#### THE CORTE DI CASSAZIONE.

Sessions of these courts of *dernier ressort* are held at Rome, Turin, and Naples, entertaining appeals even from the corte d'appello in the following cases:

1. If the forms and rules prescribed with penalty of nullity have been omitted or violated in the course of justice, provided always that the nullity has not been expressly or tacitly cured.

2. If judgment is void by operation of article 361 of the Codice di Procedura Civile.

3. If the judgment contains a violation or false application of law.

4. If pronounced upon matters not submitted.

5. If the judgment rendered exceeds that demanded.

6. Upon failure to pronounce upon issues specially submitted, except as provided by article 370 of the said code.

7. If it be contrary to a preceding judgment in another action in the same matter between the same parties.

8. If the judgment contains contradictory provisions. Appeals must be taken within ninety days by suitors residing in Europe, and within one hundred and eighty by those residing elsewhere. Recourse to cassation must be preceded by a deposit of \$50 if the judgment impugned is of the corte d'appello, of \$35 if it be of the tribunali civili e di commercio, and of \$5 if of the court of the pretori. These deposits are not required where recourse is had in the interest of the state, or in the interest of

persons admitted "*al beneficio dei poveri*," and in other cases excepted by law.

I would fain dwell longer upon this interesting subject, and especially regret that I am unable, within the limits which I have prescribed for this dispatch, to set forth the admirable system of practice and procedure inaugurated by the Italian code of 1865, and which has remained unamended. The simplicity and comprehensiveness of its 950 articles leave nothing to be desired as a formulary of intelligible, direct, and expeditious practice. Before, however, passing to another branch of the subject, I deem it but just to state the conviction resulting from careful observation under favorable opportunities, that the principles of commercial law are applied in these courts in the advanced and progressive spirit of the times and by an upright and enlightened judiciary who would adorn the bench of any country. As might be expected of this ancient home of the civilians, Italy has remained true to her traditions and now fosters a learned body of jurists, who fill up the measure of the stature of their predecessors.

#### PROPERTY EXEMPT FROM SALE UNDER EXECUTION.

Exemption extends to the following: The beds of the judgment debtor, his wife and children, and relations living with him; the clothes serving for their daily use; utensils necessary to prepare food; arms, accouterments, and baggage of those enrolled in the military service on land or sea, including the militia; movable property fixed to the freehold and deemed in law fixtures; letters, registers, and other family writings.

The following are only the subjects of levy in default of other chattels, and only in cases for board, lodging, rent, and others of privileged creditors, viz: Objects not affixed to the freehold but deemed immovable by intention of the head of the family; books, instruments, machines, and other things necessary for the exercise of the profession or trade of the debtor, and chosen by him, not exceeding in the aggregate \$100; flour and groceries necessary for the sustenance of the debtor and his family, except in suit by the party supplying them for their value; a cow, or two goats, or three sheep, as the debtor may elect, and necessary fodder for one month; silk-worm eggs if not matured; crops not yet gathered or severed from the soil, except in the last six weeks preceding the time of their ordinary maturity, unless the creditor undertakes the expense of their care; stipends and pensions due from the state.

Real estate is liable to levy and sale under execution if the judgment debtor shall fail to pay the judgment within thirty days, pursuant to notice contained in the writ of execution. Within the thirty days opportunity is given to oppose the levy before the competent tribunal. At the expiration of the thirty days the creditor can move for sale of the property described in the writ. The order must be made before the civil tribunal within whose jurisdiction is situated the property, whatever may be its value or the authority which pronounced the judgment, and if the property is situated in different jurisdictions, before that court where the greater part is. Under certain prescribed formalities, not necessary to be here set forth, the sale takes place.

#### PROVISIONAL REMEDIES.

These processes in some instances, under a different nomenclature, but in effect the same as the remedies by attachment, injunction, arrest, &c.,

are provided in cases corresponding to those in which they are taken in English and American courts.

#### THE CODICE DI COMMERCIO.

This code defines merchants to be those who make commercial acts an habitual profession, and acts deemed "commercial" are therein designated.

Merchants are required to keep day-books showing their daily debts and credits, their commercial operations, negotiations, acceptances, indorsements, and in general all that they receive or pay of whatever kind or description, containing also monthly declarations of the capital employed for business expenses. The day-books must be kept besides and independent of those books which are usual but not indispensable in commerce. They must also keep the telegrams and letters received by them, and copy in books letters and telegrams sent. Merchants must make yearly inventories of their real and personal estate, debts and credits, of whatever name or origin, and copy the same yearly in books kept therefor.

Before the three beforementioned books can be used, they must be numbered and signed on each leaf by the judge of the tribunali di commercio, or by the pretor of the district of the merchant.

A declaration of the number of pages in each book must be made on the last page of every book by signature of the judge or pretor, and date, and without charge to the merchant. Day-books must be presented once yearly to the tribunali di commercio or pretor, who must stamp them under the last entry free of charge. A register is kept in the different commercial tribunals showing the names of merchants who have presented their books, the condition of these, and the number signed therein. This register is kept by the annual examination of day-books. Pretors who have inspected day-books must certify the fact to the tribunali di commercio. The entries in the above books are in order of date, without blank spaces, and without marginal entries or footings. Erasures are not allowed, and where cancellation is necessary it must be done so that the words canceled are legible.

Books kept as above are accepted in court as proof between merchants in mercantile affairs. Books which merchants may be obliged to keep, but for the keeping of which no forms are prescribed, cannot be produced in evidence in behalf of those who keep them, save as provided in the third book of the code. All commercial books, however kept, are proof against the keeper; but those who submit them cannot deny the truth of the contents where unfavorable to them. The merchant is also required by the codice di commercio to preserve for ten years the books which the law requires him to keep, and letters and telegrams received.

The code further contains provisions in regard to bourses, brokers, and exchange agents, commission houses, forwarders by land and sea, common carriers, commercial contracts, sales, partnerships, commercial associations, societies under a collective name, corporations, the law of pledge, bills of exchange, and other negotiable instruments, proceedings against ships, ownership of vessels, rights and duties of captains, enrollment and payment of crews, freight contracts, bills of lading, freight, passengers, bottomry, bonds, insurance, jettison, and contribution, suits prohibited, and statutory limitations as to same, failures and bankruptcies.

## FAILURES AND BANKRUPTCY.

The legal provisions on this subject are so important in their relation to international commerce, and of such interest to American merchants, that I deem it proper to give them *in extenso*, in the belief that full knowledge upon this branch will inspire confidence and promote transactions. Americans may not approve the rigors of this law, but they will see in the necessity which it imposes upon the Italian merchant to honorably meet his obligations not only a safeguard, but evidence of a high standard of commercial integrity. The merchant who fails to meet his payments is deemed in a state of failure. The failure of the merchant may be declared after his death, if previously thereto he shall have ceased to pay his debts. In such case the declaration of failure, whether at the instance of creditors or on motion of the court, can only be pronounced within one year, commencing at the date of death. The insolvent must, within three days from his stoppage of payments, declare the fact to the clerk of the commercial tribunal of the place where his principal office is. The day on which stoppage of payment occurs is included in the said three days. In case of the failure of a society under a collective name, the declaration must contain the name, residence or domicil of each associate, bound each for all. This declaration is made before the clerk of the court of the place where the society has its chief office. Upon the failure of an anonymous society, proceedings are had against its directors, who must appear before the delegated judge and the receiver or *sindaco* whenever required. The declaration of the insolvent must be accompanied by a deposit of an account, or statement of the causes which prevent the insolvent from making such deposit. The account must state the property, movable and immovable, of the insolvent, with approximate values, schedule of debts and credits, a table of profits and losses, and one of expenses. The account must be certified as true, dated, and subscribed by the insolvent.

The failure is judicially pronounced by the tribunal of commerce upon the declaration of the insolvent, at the instance of one or more creditors or on motion of the court. The tribunal must in the same judgment delegate one of the judges to proceed in the matter of failure, order the affixing of seals to the effects, nominate one or more provisional receivers, and appoint the day, hour, and place for the assembling of the creditors before the delegated judge for the appointment of permanent receivers. The day assigned must be within twenty days from the day of judgment.

The day on which the cessation of payments occurred is declared in the same judgment, or in another, subsequently pronounced on the report of the delegated judge, and this on motion of the court or at the instance of a party in interest.

Failing a special determination, the cessation of payments is deemed to have taken place from the date of the judgment which declares the failure, or from the day of the death of the insolvent, if failure is declared after his death. The tribunal can at any stage of the proceedings, and also with the judgment declaring the failure, order, unless the insolvent is already in custody, his arrest or custody, according to circumstances, especially in cases of the insolvent's refusal or default in presenting account.

No other order of arrest can in this case be received against the insolvent, nor opposition to his release through any other species of debt. The arrest of the insolvent is obtained through the King's attorney. The clerk of the tribunal must give immediate notice to the pretors of

the tenor of the judgment ordering the affixing of seals, and must within twenty-four hours transmit to the King's attorney an extract of said judgment, citing the principal indications and dispositions therein contained.

Such judgments are published by placards in the commune or district of the court, in that of the court of appeals where the appeal would lie, and in places where he has business offices. An extract of the same is published in the official journals. These publications and insertions must be made by the clerk of the tribunal as speedily as possible, under the direction of the delegated judge.

The judgment which declares the failure deprives the insolvent of the control of his property and of that which may have come to him during his insolvency. The insolvent not rehabilitated cannot retain nor resume the profession of merchant save in the exceptional case hereinafter mentioned, where the insolvent has obtained a concordat. He cannot be the manager of public shows or open them on his own account. He is debarred from offices of trust and public employment. The name of the insolvent, and in cases of societies of the associates, are and remain written during their lives in books kept in the hall of the tribunal and in the chambers of commerce. From the date of declaration of the failure the receiver must be made the party in all suits against the insolvent in relation to movable or immovable property. The tribunal can in the discretion of the judge admit the insolvent to intervene in the cause. Insolvency matures debts due the insolvent. In case of failure of a drawer or acceptor of a bill of exchange or of the drawer in case of non-acceptance, the other obligors must give security for payment at maturity or elect to pay at once. The judgment which declares the failure suspends interest on the debts of the insolvent other than those secured by pawn privilege or mortgage. Interest on these secured debts can, however, only be demanded where the same arise from the sale of property subject to "pledge privilege" or mortgage. These securities are, however, void if made by the debtor after the time of cessation of payments, as determined by the court, or within ten days preceding.

Transfers of property, movable or immovable, without consideration, payments of debts not due in money, as for trespass, sale, compensation, or otherwise, and payments of debts due, but which have not been contracted in money or goods, pledges, or anticipations on the property of the debtor; and mortgages upon said property are void, if made after the day of cessation of payments or within ten days preceding.

Every other payment made by the debtor for debts due, and every act of incumbrance by him made after cessation of payments and before judgment declarative of failure can be annulled, if those who have received from the debtor, or contracted with him, knew of the cessation of payments. Payment of a bill of exchange after cessation of payments, and before judgment declaring failure, does not give right of action for restitution of the money, except against him for whose account it was drawn. As to a note to order, the action for restitution will lie only against the first indorser. In either case it must appear that he upon whom the demand for restitution is made had knowledge of the cessation of when payments when the bill was made or the note indorsed.

Distrain for rent upon the goods of the insolvent is suspended for thirty days from date of judgment declarative of failure, save the right which the landlord may have acquired to retake possession of the same.

#### THE DELEGATED JUDGE.

The delegated judge must watch and hasten the proceedings He

must make a report to the tribunal of all contests which arise from the failure and within commercial jurisdiction. The orders of the delegated judge are not subject to appeal, except in the cases determined by law. Appeals are taken before the tribunal of a fixed session. The tribunal can at any time substitute another as delegated judge.

#### THE AFFIXING OF SEALS.

The pretors must within twenty-four hours from the receipt of the notice of failure, whether the receivers be present or not, affix the seals. Even before the declaration of failure or the notice before mentioned, the pretors can affix the seals upon their own motion, or at the instance of one or more creditors, when the debtor has absconded or abstracted the moneys in whole or part. These seals are affixed to stores, warehouses, banks, offices, houses, portfolios, books, papers, furniture, and effects of the insolvent. Upon the failure of a society under a collective name, seals are placed upon the principal establishment and branches, and upon the dwelling of each member bound jointly and severally.

In all cases the pretors give immediate notice to the president of the tribunale de commercio of the affixing of the seals.

The clothing and chattels strictly necessary for the insolvent and family are not placed under seal, but are left for the use of the debtor and his family, a description of them being first made.

When the judge believes that an inventory can be made during the day, he can order the temporary receivers to proceed at once to complete the same, omitting the sealing. Where the debtor has not enough ready money to pay the expenses of the judgment declaring failure, of publication and advertisement thereof, or affixing of seals, or of his arrest and custody, the state advances such expenses pending the decree of the delegated judge. The reimbursement of such advances out of the assets is privileged before all claims except only that of the landlord.

#### GENERAL REGULATIONS.

At the time and place named by judgment declaring failure the creditors meet before the delegated judge, who questions them on the nature and amount of their claims, and consults them as to the appointment of a permanent receiver. This proceeding is certified to the tribunal, who thereupon confirm the permanent receiver and the acts of the temporary one. The tribunal can for cause substitute another, and when desirable there may be as many as three receivers. All persons are eligible to appointment save relatives by blood or marriage of the insolvent to the fourth degree.

Receivers are entitled to such compensation as the court may determine upon the report of the delegated judge after being discharged. The clerk of the tribunal must notify the temporary or permanent receivers of their appointment, and should such appointees not intend to qualify, they must within twenty-four hours declare to the tribunal their refusal. Receivers are allowed to resign on just cause, but not until others have been substituted. When expedient to add or substitute one or more permanent receivers, the delegated judge so reports to the court, who, on the demand of the next regular meeting of creditors, or of an extra meeting called therefor, make such appointment. The adding or substituting of temporary receivers is done upon the report of the delegated judge. Should more receivers be appointed than can act collectively, the judge authorizes one or more of them to perform special acts, for which they become solely responsible.

The delegated judge must dispose of complaints against the receiver's acts within three days, unless recourse is had to the tribunal, in which case the order of the judge is provisionally in force.

The delegated judge can, of his motion or at the instance of the insolvent or creditors, propose to the tribunal the removal of receivers. Should the delegated judge fail to act when instanced as above, the creditors or insolvent can apply after eight days to the tribunal. The tribunal, sitting in council, hear the report of the delegated judge and the explanations of the receiver, and decide the question of removal.

#### RIGHTS AND DUTIES OF RECEIVERS.

If the seals have not been affixed before the appointment of a receiver, he should request the pretors to affix them. The delegated judge, on request of the receiver, can dispense with the sealing and authorize the removal of goods liable to immediate deterioration or diminution of value, or which are necessary to the carrying on of the business, where the same cannot be interrupted without damage to creditors. Such goods are immediately inventoried and appraised in the presence of the pretors, who subscribe the same. These goods are sold by the receivers under authority of the delegated judge. The delegated judge, at the request of the receivers, can dispense with the sealing and authorize the withdrawal of the commercial books of the insolvent, which must be inspected by the pretor and returned to the receiver. The pretors ascertain summarily by questions the state of the books. The judge can also dispense with the sealing and authorize the withdrawal of bills receivable nearly due and those evidences of debt requiring immediate attention. These effects are described and passed to the receivers for collection or special care. A list of these is given to the delegated judge.

The other credits of the insolvent are likewise, under the superintendence of the delegated judge, collected by the receivers, who can receipt for same. Letters addressed to the insolvent must be opened by the receivers or in their presence; receivers hand to the insolvent letters not pertaining to commerce, and must make no disclosures in regard thereto. Whenever the insolvent has been placed under arrest or in custody, the delegated judge can in his discretion release him with temporary safe-conduct. The tribunal, according the safe-conduct, can compel the insolvent to give security for his appearance under penalty of payment of the sum they shall fix, and which in case of default of the insolvent devolves on his creditors.

The order of release is transmitted to the King's attorney, who can oppose the release if there be ground to proceed penally for bankruptcy. Whenever the delegated judge is unwilling to grant safe conduct to the insolvent the latter can apply for it to the tribunal, who will fix a hearing and hear the delegated judge. The insolvent can obtain for himself and family, by reason of the failure, such sustenance as the delegated judge shall allow upon suggestion of the receivers.

Appeal in this matter lies to the tribunal. The receiver must require the presence of the insolvent to examine the books, explain their contents, and open and close them in his presence.

Should the insolvent not respond, he is cited to appear within forty-eight hours. If the insolvent is under arrest or in custody, or has obtained safe conduct, he appears by agent.

If the insolvent is not under arrest or in custody, or has obtained safe conduct, he can appear by agent or attorney, upon showing cause, to be approved by the delegated judge, of inability to attend. The judge can

order the insolvent, if in custody, to be taken to the place where the books are to be examined. Whenever the insolvent fails to present his account, the receiver must proceed without delay to make it by the aid of the books and papers and the facts learned. When the account is presented by the insolvent the receivers rectify and add to it where necessary. The account, so corrected by the receiver, is deposited with the clerk of the tribunal. The delegated judge is authorized to hear the insolvent, his clerks and employés, and others in regard to the account and the causes and circumstances of failure. If the failure is declared after death, or if death follows the declaration, the wife, children, and heirs represent the deceased, for the making of account, examination of books, and other incidents of the failure.

#### INVENTORY AND REMOVAL OF SEALS.

The regulations on this subject are principally contained in the *Codice di Procedura Civile*. Permanent receivers must within three days of appointment apply for removal of seals, and inventory the property of the insolvent, who is present or legally cited. This is made in duplicate before the clerk of the pretori, who signs it. One of these must, within twenty-four hours, be deposited with the clerk of the tribunal, and the other remains with the receiver. The officers co-operate in making the inventory and appraisement, which must refer to the perishable articles before mentioned, already inventoried and appraised.

When failure is declared after death and before the making of an inventory, or the opening thereof, the proceedings before mentioned must be immediately taken, the heirs being present or legally cited.

In every failure the receiver, within five days of entrance upon or confirmation in his office, must submit to the delegated judge a full exposition or abstract of the apparent condition of the insolvent estate, and the character, causes, and circumstances of the failure. The delegated judge must immediately transmit this exposition with his observations to the King's attorney. Should the receiver not submit the exposition or abstract within said time he must inform the King's attorney of the cause of delay.

The King's attorney may assist at the taking of inventory at the domicile of the insolvent, and at all times may call for books and papers relating to the failure.

#### SALE OF ASSETS AND COLLECTION OF CHOSSES IN ACTION.

The foregoing completes the inventory and the incidents thereof, and at this stage the receiver holding the original inventory takes charge of the goods, money, bills receivable, books, papers, furniture, and effects of the insolvent. The money is deposited in the coffer of judicial deposits. The receiver continues the collection of credits under the supervision of the delegated judge, who, on notice to and hearing of insolvent, can authorize the receiver to sell the goods and other effects, and determine whether the sale shall be private or at auction.

The sale is supervised by mediators or other officials. This order is appealable. Receivers, duly authorized by the delegated judge, can summon the insolvent and pass upon controversies which concern the creditors, though affecting the rights of real property. When the article in question is of undeterminate value, or worth more than 1,500 lire, the transaction must, when relating to personal property, be ratified by the *tribunali di commercio*, and in the case of real by the *tribunali civili*.

There can be no ratification unless the insolvent has opportunity on citation to oppose. In the case of real property his opposition will delay the transaction. The receiver can employ the insolvent in his administration, unless under arrest or in custody. The delegated judge determines the conditions of this employment. Moneys derived from sales and collections must be immediately placed in the coffer of judicial deposits, after deducting the judicial and administration expenses deemed necessary by the delegated judge.

Receivers must pay over the proceeds of collections and sales to the judge within three days, or in default be charged with interest. Moneys paid in by the receivers or others can only be withdrawn upon the order of the delegated judge. If there are attachments the receivers must first have them vacated. The receiver gives each creditor an order for his pro rata as determined, upon presentation of which, approved by the judge, at the coffer, he is paid.

#### PRESERVATIVE ACTS.

The receiver, in entering upon his trust, must do all acts necessary to preserve the rights of the insolvent, and take mortgages on the realty of his debtors when not already taken. These are taken by the receiver in the name of the creditors, and certified by the clerk of the tribunal of commerce. The receiver must also take, in the name of the creditors, a deed from the insolvent of his realty, on a like certificate from said clerk.

#### VERIFICATION OF CLAIMS.

Claims and evidences of indebtedness are deposited by the creditors with the clerk of the court, who is responsible for their safe-keeping for five years, and who gives receipts therefor. These papers must contain statements of the amounts due.

Creditors who at the time of the nomination or confirmation of the receiver have not delivered such papers are at once notified, through the official newspapers and by letters from the said clerk, to present the same within twenty days. This time is extended in certain cases, as follows: By two days where the creditor is a non-resident of the commune and district, but within the jurisdiction of the tribunal; by five days, when without the jurisdiction of the tribunal but within that of the corte d'appello; by ten days, when without the two latter jurisdictions; by fifteen days, in other cases of residence within the kingdom. For creditors out of the kingdom but in Europe the term is ninety days, and for those not in Europe one hundred and eighty days. The verification of claims must begin within three days from the expiration of above-mentioned terms for creditors within the kingdom, and be continued without interruption, at a time and place designated by the delegated judge and contained in the above-mentioned published notice.

Nevertheless, where the delegated judge deems it needful he can again convoke the creditors for verification of claims by letter of the clerk of the tribunal or published notice. Claims of the receiver can be verified by two of the larger creditors named in the account, and therefore assigned by the delegated judge. Other claims are verified by the receiver before the judge and creditors, or representatives of the latter. Creditors whose claims are verified or stated in the account, can take part and controvert verifications made or to be made. The insolvent has the same right.

The delegated judge makes entry of the verifications of claims and

therein indicates the residence of creditors and their attorneys, with description of the evidences of debt, and mention of additions, cancellations, interlineations, and whether the claim is admitted or contested. In all cases the delegated judge, at the instance of those interested or on his own motion, can order the presentation of the creditor's books, or an extract from same. If the claim is admitted in whole or in part, the receiver indorses it as admitted for a stated amount, and the same is furthered vided by the delegated judge. Every creditor must within eight days from the verification of his claim swear before the delegated judge, or before another as established by the *codice di procedura civili*, that his claim is real and true and for the amount at which it has been admitted. But the creditors whose claims have been verified can after the eight days and at any time take the oath, but until they have taken it they cannot participate in the formation of the concordat, nor be included in the distributions under it, nor oppose orders already made, except as hereinafter explained. The delegated judge, on the application of the receiver, can, subject to the tribunal, waive the oath in the case of creditors without the kingdom, whose claims are then received and deemed sworn.

If the claim is commercial and contested, the delegated judge decides upon it when it does not exceed 1,500 lire, subject to appeal to the tribunal. Where it exceeds 1,500 lire the judge sends the parties to a session of the tribunal, which decides upon the report of the said judge.

If the claim contested is civil the delegated judge sends the case to the pretors, or competent tribunal of the place in which the judgment of failure was pronounced. If the litigation as to the admission of a claim cannot be definitely determined by the tribunal of commerce within the terms before stated for presentation of claims by creditors without the kingdom, the court can order adjournment of the meeting of creditors for the formation of a concordat. They can provisionally admit the creditors whose claims are contested at an appraised value, should they order the meeting. When the contest is carried before the civil tribunals or the pretors, the tribunal of commerce orders adjournment or to proceed to convocation. In this second case the civil tribunal, or pretors, pronounce urgency and determine the sum at which the claim may be provisionally admitted.

Should the debt be subject to criminal prosecution, the tribunal of commerce can likewise adjourn it to the convocation for the concordat. If the convocation is ordered the claim cannot be provisionally admitted, nor can these creditors participate in any proceeding until his claim is adjudicated. If the contest with a creditor involves only the question of preference or security he is admitted as a secured creditor. The terms before mentioned for presentation of claims of creditors within the kingdom having expired, they proceed to the formation of the concordat and all other duties resulting from the failure, except as to certain matters hereinafter explained in which foreign creditors are interested.

Creditors known or unknown who have not appeared within the terms before mentioned cannot be included in the distribution, but they can oppose all proceeding until distribution made, they paying the expenses of opposition. The creditors decide the claim of a creditor remitted to them by the tribunal of commerce. Opposition does not suspend the distribution ordered by the delegated judge. If, however, a distribution is made pending the decision of the contest, the creditor will be included for the sum provisionally determined, and which will be kept in reserve until decision. If such claims shall be recognized after a distribution

already ordered by the delegated judge, the creditor cannot participate in such distribution, but shall be entitled to receive from the moneys undivided the sum which he would have received from the distribution.

#### THE CONCORDAT AND UNION.

And herein the first of the convocation and setting of creditors; secondly, of the concordat and its incidents; thirdly, of the union of creditors, and fourthly, of the cessation of all proceedings.

*The convocation.*—Within three days from the verification of claims, the delegated judge causes the clerk to assemble the creditors whose claims have been confirmed, or provisionally admitted, to consult on the formation of a concordat.

At the time and place appointed by the delegated judge the meeting is held, he presiding. The creditors appear in person or by attorney. The insolvent is summoned, and must personally appear if at liberty. He cannot be represented except for good reasons approved by the judge. The receiver must at the sitting report upon the condition of the failure and on all proceedings taken. The insolvent is heard. This report is subscribed and handed to the delegated judge, who makes entry thereon of the proceedings of the meeting.

*The concordat and its incidents.*—No creditor can be a party to the concordat who has not conformed to the formalities hereinbefore set forth. The concordat can only be made by a majority of all the creditors whose claims have been verified and confirmed under oath, or admitted provisionally, and who represent three-fourths in amount of all the debts. Creditors privileged or secured collaterally can have no vote relative to the concordat, nor can any account be taken of their claims unless they renounce their privilege and the collaterals. Should such creditors vote, the same is a renunciation. The concordat must be subscribed at the same meeting at which it was consented to, otherwise it is void. If solemnly assented to by a majority of creditors present, or by a majority of three-fourths of the total amount of claims, the matter must be adjourned to another meeting appointed by the delegated judge within fifteen days.

Should there be neither of the above majorities, but a considerable number of creditors assent, the delegated judge may defer the matter to another sitting to be held within fifteen days, to the end that one of said majorities may be obtained.

In these cases the resolutions passed and consents given at the first meeting are without effect. Meanwhile creditors have a right to obtain information at the clerk's office of the proceedings.

There can be no concordat if the insolvent has been condemned for fraudulent bankruptcy. When proceedings are pending for fraudulent bankruptcy the creditors are assembled to decide only whether they, in case of acquittal, will deliberate for a concordat. In such assembly there must be majorities as to numbers and amount before mentioned. When after this suspension the concordat is deliberated upon, the same rules apply to the new deliberation. The concordat can be made if the insolvent has been condemned for simple bankruptcy.

In case of pending proceedings an adjournment is had until their termination. Creditors who have the right to concur in the concordat, and those whose claims are afterwards recognized, can oppose it. The opposing papers must contain the grounds, and be communicated to the receiver and the insolvent, under penalty of nullity, within eight

days following that of the concordat, with a citation to an appointed hearing before the tribunal.

If all the receivers oppose the concordat there must at once be nominated others, with notice to those opposing, within three days of their nomination. If adjudication on this opposition involves questions upon which the tribunal of commerce is incompetent to pass, the matter is adjourned until their decision by the competent court. The ratification of the concordat is demanded by the most diligent party. The tribunals cannot decide until the eight days for opposition before mentioned have expired. If opposition is made during the eight days, the tribunal decides upon it and the ratification in the same judgment.

If the opposition succeeds, the tribunal annuls the concordat as to all those interested. In all cases, and before judgment is pronounced upon the ratification, the delegated judge reports to the tribunal the circumstances of the failure, and whether the concordat should be allowed or not. If the formalities before mentioned have not been observed, or if the interests of the creditors demand it, the tribunal refuses to ratify the concordat.

*The effect of the concordat.*—The ratification renders the concordat obligatory on all the creditors, whether named or not in the account, who may or who may not have verified their claims, and also on the creditors residing without the kingdom, and on those admitted to deliberate provisionally, whatever may be the sum liquidated in their favor by the final judgment. Ratification of the concordat preserves to all the creditors the mortgage upon the real estate of the insolvent in the name of all the creditors taken by the receiver. The receiver notes the ratification on the margin of the mortgage, except as otherwise provided in the concordat. As soon as the judgment of ratification of the concordat is made, functions of the receivers cease, except as hereinafter mentioned. They render to the insolvent their final account, which is discussed and closed in the presence of the delegated judge. They hand over to the insolvent all his goods, books, papers, and effects, on receipts taken; and this is done under the conditions and cautions which may be established in the concordat. The delegated judge makes entry upon all papers, and in regard to all acts, and completes his duties. The tribunal adjudicates on all matters that may arise. The insolvent not guilty of bankruptcy who has obtained a concordat, can resume his calling of merchant, and cause to be entered upon the book of insolvents, near his name, the said concordat. He is deprived of these rights and the before mentioned entry, if already made, if within six months succeeding the time prescribed for the last payment to the creditors the payments are not fully made.

The concordat, although ratified, is of right annulled when the insolvent is condemned for fraudulent bankruptcy. The concordat can be annulled by the tribunal at the instance of the receivers, or creditors called by them, and in opposition to the insolvent, for fraud discovered after the ratification whether overt or covert. Annulment discharges the sureties for the concordat. No other action to nullify the concordat can be entertained after its ratification.

If the insolvent does not fulfill the conditions of the concordat its dissolution can be demanded by a majority of the creditors who participated in its formation, and whose claims therein contained have not been satisfied. This demand is made to the tribunal by the receivers, in the name of such creditors, or by said creditors called by the receivers, the insolvent and sureties, if any, opposing. Dissolution can be demanded individually, but only as to individual interest, by one or more credit-

ors whose installments as fixed by the concordat have not been duly paid in whole or part. In such case these creditors re-enter upon all their rights, both against the property and person of the insolvent, but cannot demand more than the share fixed by the concordat until the expiration of the term thereby fixed for payment of the last installment. This dissolution of the concordat does not free the sureties guaranteeing the execution thereof in whole or part. Actions for dissolution must be brought within five years from the time appointed for the last payment by the insolvent.

If, after the ratification of the concordat, the insolvent should be adjudged a fraudulent bankrupt, and an order of arrest is issued against him, the tribunal can make the necessary preservative provisions. These provisions cease from the termination of penal proceedings. On presentation of judgment of fraudulent bankruptcy, or of annulment or dissolution of the concordat the tribunal nominates a delegated judge and one or more receivers. The receivers can affix the seals. They must proceed without delay, in the presence of the clerk of the pretor, and with the aid of the old inventory, to the examination of the assets and papers, making out a supplement to the inventory and account. They must also publish by means of placards and advertisements in the newspapers notices in the manner prescribed in proceeding on judgment of failure, containing an extract of the judgment nominating them, and requiring new creditors, if any, to present their claims for verification.

The request to present claims may also be made by letter of the clerk of the tribunal. The claims must be forthwith verified, but no further verification is required of claims previously admitted and sworn to, except as to those paid in whole or part.

These formalities being finished, if no new concordat is made, the creditors are assembled to advise as to the keeping or substitution of receivers. There can be no new distribution until the expiration, as respects new creditors, of those terms before mentioned for creditors residing within the kingdom.

The acts of the insolvent, after the ratification and before the annulment or dissolution of the concordat, will not be declared null except in case of fraud of creditors' rights. Creditors before the concordat re-enter upon all their rights in respect to the insolvent only, but they cannot participate with the whole body of creditors except as follows:

If they have collected no part of the dividend they are entitled to the whole claim. If they have received a part, then to such part of the original debt as corresponds to the proportion which the unpaid dividend bears to the whole dividend.

*The union of creditors.*—If consent is not obtained for a concordat, the creditors are of right in a state of union. The delegated judge interrogates without delay the creditors upon the administration and the continuation of the receivers, or the substitution of others. The creditors who are privileged are admitted to deliberate. The judge makes entry of wishes of the creditors, upon which the tribunal provides for receivers.

Those receivers who are not retained render immediately to their successors an account of their administration in the presence of the judge. The creditors are consulted as to whether the family of the insolvent can be accorded some support out of the insolvent estate, and a majority in number of the creditors present at the meeting consenting, such support can be accorded, in a sum proposed by the receivers and approved by the delegated judge, subject to appeal to the tribunal. Whenever a "*societa di commercio*" fails, the creditors may consent to a concordat in favor of one or more of the members. In this case all the society

money remains under the administration of the union. The particular assets of the member who has consented to the concordat are excluded from such administration, and the particular concordat made with him cannot contain an obligation to pay a dividend with moneys belonging to the society capital. The member who has obtained the particular concordat is discharged from the joint obligation. The receivers represent the mass of creditors, and are charged to proceed to the liquidation of the insolvent's estate.

The creditors can always authorize the receivers to continue the administration and care for the insolvent's estate. The proceedings of the creditors so authorizing the receiver should establish limits and duration, and fix a sum for the receivers to retain in their own hands to defray court and administration expenses; and such proceedings must be had before the delegated judge, and by a majority of three-fourths of the creditors in numbers and amount. Dissenting creditors, and also the insolvent, can oppose before the tribunal, but this does not suspend proceedings. If the administration of the receivers cause obligations exceeding the capital of the union, those creditors only who have authorized the same are personally held beyond their part of the capital, within the limits, however, of the authorization. They contribute in proportion to their respective claims. Receivers must proceed to the sale of the realty, merchandise, and other effects of the insolvent, and to the liquidation of his debts and credits, under the supervision of the delegated judge, and without citing the insolvent. The receivers can, according to rules established, pass upon every species of rights pertaining to the insolvent without regard to his opposition.

The creditors in a state of union are called together by the delegated judge at least once in the first year, and, if desirable, in succeeding years. At these meetings the receivers render an account of their administration. They are retained or others substituted, as hereinbefore stated, under the head of receivers. The liquidation being completed, the creditors are assembled by the delegated judge to receive the final account of the receivers, the insolvent being present or legally cited. At this last meeting the creditors give their advice as to whether the insolvent may be pardoned. To that end entry is made in which each one of the creditors of the insolvent can have his remarks appear. This sitting being closed, the union is of right dissolved. The delegated judge presents to the tribunal the deliberations of the creditors as to the pardon of the insolvent, and a report as to the character and circumstances of the failure.

The tribunal declares whether the insolvent may be pardoned. If the tribunal decides the insolvent to be guilty, the creditors re-enter upon all their rights against both the person and the goods of the insolvent. If the tribunal declares the insolvent excusable, he cannot be personally arrested at the instance of his creditors, who can only resort to his property, save in the cases excepted by law. The insolvent can cause to be written in the book of insolvents, near his name, the declaration of the tribunal.

Those guilty of fraudulent bankruptcy, or condemned for robbery or fraud or abuse of confidence, under articles 626, 628, 629, 631, and 633 of the penal code, and those accountable for public moneys, cannot be declared excusable of cessation of operations. The tribunal, upon the report of the delegated judge, and after hearing the receivers, can declare a cessation of the proceedings in the failure, in case of insufficiency of money for such proceedings.

This declaration restores to the creditors their rights against the goods

and person of the insolvent. The tribunal, for special reasons, on hearing the receivers, can declare in the same judgment which pronounces cessation whether the insolvent is excusable. The enforcement of the judgment is suspended for one month from its date. The insolvent, and any other person interested, can at all times move the tribunal for revocation of judgment of cessation, showing there is a sufficient fund to pay expenses, or handing the receiver a sufficient sum for that purpose. In all cases the creditors must prepay the expenses of the motion.

#### CO-OBLIGATORS AND SURETIES.

Creditors holding obligations, subscribed, indorsed, or guaranteed by the insolvent and others jointly and severally liable, but also insolvent, participate in the distributions with the whole body of creditors, being included at the nominal value of their claims until entire payment.

No return for dividends paid is accorded to the insolvent co-obligators as against each other, except the united dividends exceed the whole indebtedness and expenses of the insolvent proceeded against, when the excess is distributed among the insolvents, in the proportion in which they have paid, and the part which was chargeable to the insolvents respectively as co-obligators. If, however, the obligators are guaranteed the one by the other, the excess belongs, according to the order of the obligation, to the body of insolvent co-obligators.

If a creditor holding an obligation made jointly and severally by the insolvent and others, has received before the failure a part of his claim, he cannot be included in body, except as to the balance due, for which he preserves his rights against the co-obligators, or sureties. The co-obligators, or sureties, who have made part payments become comprised in the same general body of creditors for all that they have paid on account of the insolvent.

Nevertheless the creditor preserves the right to resort to the dividend which may be about to be assigned to the co-obligator, or surety, until the complete payment, limiting in such case his action against the said co-obligator, or surety, to that sum in which he still remains creditor after the two recovered dividends.

The co-obligator, or surety, has a mortgage or pledge on the property of the insolvent in the whole body for the sum for which he holds a mortgage or pledge. This sum is included in that stated by the creditor in the failure, and the proceeds of the mortgaged goods, or of the pledge, belongs to the creditor in the computation of the sum which may be due him.

Notwithstanding the concordat, the creditors preserve their right of action against the co-obligators, or sureties, of the insolvent for the whole of their claim, although they may have voluntarily consented to the concordat.

#### OF CREDITORS WITH PLEDGE AND OF PRIVILEGED CREDITORS UPON THE PERSONALTY.

The creditors of the insolvent, who are validly protected by pledge, are not inscribed in the body of creditors unless by way of memorandum. If the pledge is sold at the instance of the creditor for more than his debt, the excess is taken back by the receivers; if the selling price is less than the claim, the creditor is admitted to the distribution, as an unsecured creditor, in the amount of the deficit. The receivers can at any time, with the authorization of the delegated judge, redeem the

pledge for the benefit of the insolvent by paying the creditor. Salary due to workmen in the immediate employ of the insolvent during the month preceding the declaration of failure is admitted among preferred or privileged claims, as prescribed in Article 1956 of the Codice Civile for domestic servants. Clerk hire due by the insolvent for six months preceding declaration of failure, is admitted as a claim of the same nature.

The receivers present to the delegated judge a catalogue of claims alleged to be preferred, privileged, or secured by the personalty, and he authorizes, if desirable, the payment of such claims with the funds first realized. Should contests arise they are referred to the delegated judge or competent judicial authority, as hereinbefore stated.

#### RIGHTS OF PREFERRED CREDITORS SECURED BY MORTGAGE ON REALTY.

Whenever the distribution of the proceeds of the personalty, or if the realty and personalty are distributed at the same time, the preferred creditors, or mortgagees, not satisfied in full out of the proceeds of the realty, participate to the extent of the sums due them with the creditors secured by other specialties, provided their claims have been verified and confirmed by oath as before explained.

If one or more distributions of the proceeds of the personalty precede the distribution of the realty, the preferred or mortgaged creditors whose claims have been verified or confirmed by oath, participate in the divisions in the proportion of the whole of their claims, save the separations afterward mentioned. If the preferred creditors, or mortgagees, are satisfied out of the proceeds of the realty for their entire claim, the body of creditors secured by other instruments in writing are subrogated to their rights for the sum obtained by them as before mentioned. If the preferred or mortgaged creditors are not wholly satisfied out of the proceeds of the realty, they appeal to the body of creditors secured by specialties and are definitely regulated in proportion to the sums in which they remain creditors after the arrangement, and the body of creditors is subrogated in their place for that which might have been assigned, as we have before seen, besides the proportion of the part of the claims not arranged. The preferred or mortgaged creditors, not satisfied out of the proceeds, are considered as creditors by specialty, and are subjected to all the effects of the concordat, and all proceedings of such creditors.

#### RIGHTS OF THE WIFE OF THE INSOLVENT.

In the event of the failure of the husband, the wife retakes the dotal realty, and realty not dotal, which belonged to her at the time of her marriage, or which she has acquired during the same by gift, testamentary succession, or inheritance. The wife likewise retakes the realty required by her, and in her name, with proceeds of property which belonged to her at the time of marriage, or acquired by gift, succession, or inheritance, as above, provided that in the contract of purchase the use is expressly declared, and the source of the money ascertained by inventory or other instrument. In all other cases, and even when there has been an agreement to hold conjugal property in common, the presumption is that property acquired by the wife of the insolvent belongs to the husband, and that it was acquired and paid for with his money, and is included in the assets of the insolvent. Proof to the contrary is admitted in favor of the wife. The wife can retake in kind the dotal

personalty as paraphernalia resulting from the marriage contract, or which has come to her by gift or succession, when its identity is proved by inventory or other instrument. If the personalty of the wife has been sold and other acquired with its proceeds, or if it has by any means been converted into other property, personal or real, the wife can exercise her right to retake, provided the transformation or reinvestment has been by a valid instrument and with proper formalities.

In default of such proof all the personalty, as well of the husband as the wife, as well as that held in common, goes to the body of creditors, unless the delegated judge authorizes the receivers at their request, or at the instance of the wife of the insolvent, to place at his disposal clothes and linen necessary and proper for her use, except the same are disposed of as hereinbefore mentioned. The right to retake, before mentioned, cannot be exercised by the wife if the property has been legally charged with the insolvent's debts. If the wife has paid debts of the husband she is presumed to have paid them with his money, and is not permitted to appear as a creditor. Proof against this legal presumption is admitted in favor of the wife. She is admitted as a creditor for the proceeds of her own property alienated by her husband during coverture. If at the time of marriage, or within a year thereafter, the husband exercises the calling of merchant, the legal dotal lien upon his property does not extend to property acquired by him during coverture in any other manner than by gift or testamentary succession. In such cases the wife cannot be benefited by the insolvency through any provisions of the antenuptial contract in her favor, nor can creditors be benefited by advantages resulting from the said contract in favor of the husband.

#### DIVIDENDS TO CREDITORS.

The proceeds of the personalty is divided among all the creditors in proportion to their verified and confirmed claims, after first deducting therefrom judicial and administration expenses, moneys accorded for support of insolvent and family, and sums paid to privileged creditors. For this purpose the receivers furnish every month to the delegated judge a statement of the situation of the failure, and of moneys on deposit. The delegated judge orders, if desirable, a dividend, fixes the pro rata, and causes all creditors to be notified. No dividends are paid to creditors residing within the kingdom without reserving a corresponding proportion for claims of creditors residing without the kingdom, when such claims at the time of declaring the dividend may not have been admitted. If such claims are not precisely stated in the account, the delegated judge determines the sum to be reserved, subject to appeal by the receivers to the tribunal. The portion reserved remains in the coffers until the expiration of the terms for presentation of claims by the various classes of creditors without the kingdom hereinbefore mentioned. If such creditors have not duly verified their claims, the portion reserved is divided among the recognized creditors. A portion is also reserved for claims, the admission of which has not been definitely decided. If moneys so reserved produce interest it goes to the creditors for whom reserved. Deposits are at the risk and expense of such creditors. No payment is made by the receivers except on vouchers with proper formalities. In case of impossibility to present the voucher, the delegated judge may authorize payment on presentation of an extract of the entry made at the verification of claims. The creditors give a receipt. The union of creditors, the insolvent being legally called, can be authorized by the tribunal to negotiate and conclude a

sale in mass, in whole or in part of chattels remaining and choses in action, which the receivers carry out. Any creditors can request the delegated judge to order a meeting of the union for this purpose.

#### SALE OF THE REALTY OF THE INSOLVENT.

After judgment declarative of failure, creditors cannot proceed against the realty, unless privileged or mortgage creditors, and these cannot except their claims are matured. If the property has not been foreclosed before the union of creditors, only the receivers are permitted to move the sale, which they should do before the tribunale civile, on the authorization of the delegated judge within eight days of the said authorization. The sale is conducted under the rules prescribed for sales of property of minors. The receivers can bid at the auction.

#### RECLAMATION.

Commercial or other effects can be reclaimed if not paid for by the insolvent and possessed by him in an unchanged state at time of failure, when such reclamation is made by the owner, by simple order to collect and take charge of the proceeds for his account, or when said effects are destined by the owner for specific payments. Goods deposited with the insolvent, for sale for the account of the owner, can also be reclaimed during the time they remain unchanged in character in whole or part. There can also be reclaimed the proceeds or portion of proceeds of merchandise, deposited as above, which has not been paid for in money or otherwise, nor liquidated in the account current between the insolvent and the buyer. Goods forwarded to the insolvent can be reclaimed provided that delivery has not been made in his stores, in public stores at his disposition, or in those of an agent employed to sell them for his account. Reclamation cannot take place if the goods, before arrival, are sold without fraud, upon bill, bill of lading, or transport letter signed by the forwarder. The claimant must reimburse the body of creditors any sum received from the insolvent on account, and all anticipations made by the insolvent for freight, carriage, commissions, insurances, or other expenses, and pay all sums which may be due for the same. The seller can retain the possession of goods sold and not delivered to the insolvent, and which have not been forwarded to him or to a third party for his account. In these cases the receivers, duly authorized by the delegated judge, can take the goods and pay the seller the agreed price. The receivers, with like authorization, can admit the demand of reclamation. Should the receivers or any creditors contest or oppose it, the tribunal decides the matter upon the report of the delegated judge.

#### OF OPPOSITION TO AND APPEAL FROM JUDGMENT IN MATTER OF THE FAILURE.

The judgment declarative of failure, and that which fixes to a date anterior the time of cessation of payments, are subject to opposition before the same tribunal which has pronounced them. This opposition must be made by the insolvent, within eight days, and by every other person in interest within thirty days from that on which the formality of publication and insertion of judgment was completed. The demand of the creditors to have the date of cessation of payments determined as of a time different from that established by the judgment declarative of

failure, or by subsequent judgment, is admissible until the expiration of the terms fixed for the verification of claims and swearing of creditors. These terms having expired the time of cessation of payments remains irrevocably fixed as regards creditors. The forms and terms of appeal from judgments in these cases are regulated by the code of civil law. Those judgments are not subject to opposition or appeal which provide for the nomination or substitution of a delegated judge, for the nomination, substitution, or discharge of receivers, which pronounce on the safe conduct and support of the insolvent and his family, which authorize the sale of the effects and merchandise belonging to the insolvent, those which order an adjournment for the formation of a concordat or admit, provisionally, contested claims, and finally, those which decide appeals from orders of the delegated judge.

#### **SIMPLE BANKRUPTCY.**

Those guilty of simple bankruptcy are, on motion of the receivers, and creditors, or of the king's attorney, so adjudged and punished as provided by the penal code. The merchant who fails under any of the following circumstances is guilty of simple bankruptcy:

I. If his personal or commercial expenses are adjudged excessive.

II. If he has lost large sums in merely speculative enterprises, or in hazards on the stock exchange or in merchandise.

III. If with intent to delay his failure he has bought to resell below current values, or has had recourse to loans, indorsements, or other ruinous expedients to raise money.

IV. If after cessation of payments he pays any creditor to the detriment of the body of creditors. In case of the failure of a society the directors are guilty of simple bankruptcy if by their fault the forms established in the first volume of the commercial code, and not necessary to be here detailed, were not observed, or if the failure of the society was caused by their fault. Brokers are guilty of simple bankruptcy if they fail to pay their debts. Insolvent merchants may be declared guilty of simple bankruptcy in any of the following cases:

1. If he has contracted for account of others, without receiving value in exchange, obligations adjudged too great, in view of his circumstances, at the time of the agreement.

2. If he has not fulfilled the obligations of a preceding concordat.

3. If he has failed to register with the clerk of the tribunal of commerce, at the place of his business, the marriage or antenuptial contract.

4. If within three days from cessation of payments he has not made the declaration of failure hereinbefore mentioned, or if the declaration does not indicate the names of all the partners jointly liable with him.

5. If without legal impediment he has failed to personally appear before the receivers in the cases and at the times established, or, if having safe conduct, he has disobeyed the order to personally appear.

6. If he has not kept the books required by law, nor made a true inventory, or if his books and inventories are irregularly or imperfectly kept, or if they do not truly show his assets, even though there be no fraud.

The expense of the proceeding for simple bankruptcy is defrayed by the state. But should the proceeding be instituted by the receivers in the name of the creditors, or by any creditor in his own name, the expenses in case of a judgment of acquittal can be imposed on the body of creditors, or on the instituting creditor. The receivers cannot institute proceedings for simple bankruptcy unless previously authorized

therefor by a majority in number of creditors present at a meeting. The state cannot be reimbursed the expenses of the proceeding to the detriment of the body of creditors, and cannot proceed against the insolvent for reimbursement if he has obtained a concordat, until the expiration of the time therein fixed for payment of creditors.

#### FRAUDULENT BANKRUPTCY.

The merchant who has abstracted his books, abstracted or concealed part of his capital, or who in books, writings, or in authenticated or private papers, or in his balance sheet has fraudulently represented himself debtor, is guilty of fraudulent bankruptcy, and is punishable, in accordance with the penal code, as hereafter mentioned. In the case of a failure of a society the directors are guilty of fraudulent bankruptcy, and punishable therefor:

1. When they have fraudulently omitted to publish the articles of association as prescribed by law.

2. When they have falsely stated the amount of capital subscribed or paid in.

3. When they have declared dividends to the associates which were manifestly not earned, and did not exist, and whereby the associate capital was diminished.

4. When they have made loans larger than allowed by the articles of association.

5. When they have occasioned by fraud, or as to the result of fraudulent acts, the failure of the society.

The expense of the proceedings for fraudulent bankruptcy cannot be charged to the body of creditors. If taken at the instance of one or more creditors in case of judgment of acquittal, the expense is defrayed by them.

#### OF OFFENSES COMMITTED IN THE FAILURE BY OTHERS THAN THE INSOLVENT.

Those are condemned to the punishments established for fraudulent bankruptcy who are convicted of having knowingly and in the interest of the insolvent abstracted, hidden, or concealed his personalty or realty, except as otherwise provided by the penal code; those who have fraudulently submitted and sworn to simulated claims in their own name or through an intermediary, and those guilty of acts constituting fraudulent bankruptcy as before defined, doing business in the name of another or under a simulated name.

The consorts, descendants, ascendants, connections, and relatives of the insolvent knowingly abstracting or receiving valuables or effects belonging to the insolvent estate without complicity of the insolvent are punished as for theft. In these cases the court in rendering judgment, though it be of acquittal, must order, when practicable, restitution to the body of creditors of the property and damages as ascertained.

Receivers guilty of malversation are punishable by fine and imprisonment as provided by the Penal Code. Creditors who stipulate with the insolvent or with any other person, for advantages in consideration of their votes at creditors' meetings, or who make particular agreements, by which result advantages in their favor in the insolvent estate, are punished by imprisonment not exceeding one year and by fine not exceeding 2,000 lire. If the creditor is a receiver the punishment may be imprisonment for two years. Such agreements are declared void as respects

the insolvent and all others, and restitution must be made by creditors of anything received thereunder. In civil cases the annulment is declared by the tribunale di commercio. Judgment in these penal cases is published throughout the district of the *corté d'appello*, and in all places where the condemned had business offices, through newspapers, and placards.

#### PUNISHMENT IN CASES OF BANKRUPTCY.

The Codice Penale provides that those guilty of fraudulent bankruptcy, as before defined, are punishable by imprisonment, with or without hard labor, for terms dependent upon the gravity of the offense.

In cases of simple bankruptcy the punishment is imprisonment for not less than one month or more than two years. Exchange agents and brokers guilty of simple bankruptcy are punishable by imprisonment for not less than five years, and with hard labor at fixed times; and if guilty of fraudulent bankruptcy with like imprisonment and the maximum of hard labor. Those adjudged accomplices of fraudulent bankruptcy are condemned to the same punishments as their principals.

#### ADMINISTRATION UPON THE BANKRUPT'S EFFECTS.

In the cases of proceedings and condemnation for bankruptcy, civil suits are kept separate (except in the one case of annulment of agreement wrongfully made between a creditor and the insolvent hereinbefore mentioned) and the insolvency proceedings are not interrupted.

The receivers must place at the disposition of the king's attorney the documents, title papers, and explanations which he may require, and he in turn will furnish the receivers with any papers they may require, relative to any proceedings. They can copy such papers, or make extracts. Papers not ordered to be judicially deposited are restored to the receivers after judgment on their receipting for same.

#### REHABILITATION.

The insolvent who has fully paid the principal and interest by him owing, and expenses, can be rehabilitated. A member of an insolvent society can only attain rehabilitation when he shall have proved the payment in full of all the society's debts, with interest and expenses, although he personally may have obtained a concordat. Rehabilitation is sought of the court of appeals within whose territorial jurisdiction the judgment declarative of failure was pronounced. The insolvent must accompany the request with vouchers justifying it.

The procurator general at this court causes copies of the application to be sent to the king's attorney and the president of the commercial tribunal of the district of the insolvent proceedings, and to those of the district of the insolvent's residence, charging them to investigate as to the truth of the facts therein contained. The king's attorney causes a copy of the application to be posted up for two months in the hall of the tribunal, in the communal hall, and at the bourse, if there be any, and inserts extracts in the official journal. Any creditor, the principal and interest of whose claim has not been entirely paid, with expenses, or any other party in interest can, during the said two months, oppose rehabilitation by presenting to the clerk of one of said tribunals papers in support of such opposition. Such opposing creditor cannot be a party to the proceeding before the court of appeals for rehabilitation. The said two months

having expired the king's attorney and the president of the commercial tribunal send separately to the procurator general such facts as they have collected, and all papers of parties opposing, with their own opinion and advice. The court of appeals hears the view of the procurator general and decides the application. If rejected no other application will be entertained until the expiration of a year. The decree of rehabilitation is sent to those king's attorneys and presidents of commercial tribunals, to whom were sent copies of the application. These tribunals order it publicly read by their clerks and transcribed in their registers. The name of the rehabilitated is erased from the book of insolvents. Those guilty of fraudulent bankruptcy, or condemned for theft, fraud, or abuse of confidence, as well as guardians, administrators, and others who have not rendered or settled their accounts are not admitted to rehabilitation; those guilty of simple bankruptcy, who have undergone the punishment to which they were sentenced, or have been pardoned, can be admitted to rehabilitation.

The insolvent can be rehabilitated after his death.

#### IMPRISONMENT FOR DEBT.

The act of December 6, 1877, abolished imprisonment for debt, except in cases of fraud or other actions sounding in tort, therein expressly mentioned.

The machinery in cases of insolvency is manifestly cumbrous, and calculated to throw large expenses upon estates in administration and litigation. Why a competent receiver cannot be appointed in the first instance, and why there should often be more than one, is difficult to understand.

The regulations for the keeping of books are certainly in the interest of fair dealing, although not in consonance with the ideas of commercial freedom which obtain in our country. Whatever may be the faults of the insolvent laws, it must be conceded that they present a wholesome terror to merchants who must regard a suspension of payments as little less than irretrievable ruin. It would therefore seem that when Italian houses of good standing are selected, business may be transacted with them with a reasonable degree of safety.

That feature of the law is especially salutary and wise which devolves upon the court the duty to pronounce whether the insolvency results from unavoidable circumstances, or from improvident and speculative transactions constituting simple bankruptcy, or from fraud subjecting to the serious penalty of fraudulent bankruptcy. These proceedings are in the main borrowed from the Codice Albertino of 1842, and are superior to those of the old French code of 1807. The provisions in regard to anonymous societies are modeled upon the Belgian law of 1851.

The law defining the cases in which parties contracting with the insolvent may reclaim their goods eliminates a question previously fruitful of clashing decisions. Another important change from the code of 1842 makes the former offense of accessory to fraudulent bankruptcy a substantive offense, *sui generis*.

On the whole, it may be said that the existing commercial laws of Italy compare favorably with those of France and Germany. That part relating to bankruptcy retains the vigor of the earlier English statutes; being applied as a punishment—not sought as a privilege. In Italy it is the sword of the creditor, in England the shield of the debtor. If the merits of these systems are to be determined by the protection

afforded creditors, that of Italy is the better; if by benefits to debtors, and by sympathy, the English is preferable. It is not my province to moralize but to present facts.

DUNHAM J. CRAIN,  
Consul.

UNITED STATES CONSULATE,  
Milan, Italy, 1881.

IMPORTS AND EXPORTS OF RUSSIA.

REPORT BY CONSUL-GENERAL STANTON, OF ST. PETERSBURG.

Herewith I transmit a statement of Russia's imports and exports during the first three months of the current as compared with those of the previous year, together with a translation of the same.

In both imports and exports there is, on the whole, a great decrease of business, the only exceptions being in the imports salt, herrings, cotton, indigo, and lead, salt only showing a decided increase; and in the exports hemp, oakum, linen thread, bones, and potash.

While in almost all the above-named articles, salt excepted, the increase is but slight, the decrease in two of Russia's staples of export, viz: cereals and spirits, is enormous, being in the former about 60 per cent. and in the latter about 66 per cent. This decrease is doubtless the result of the failure of last year's crops.

EDGAR STANTON,  
Consul-General.

UNITED STATES CONSULATE-GENERAL,  
St. Petersburg, June 1, 1881.

Russia's international commerce.

IMPORTS.

Articles.	First quarter, 1880.	First quarter, 1881.
Raw sugar.....poods..	323	2
Refined sugar.....do....	61	
Tea.....do....	162, 107	46, 529
Coffee.....do....	71, 298	35, 179
Oil.....do....	266, 291	95, 461
Wine in casks.....do....	169, 111	77, 008
Wine in bottles.....do....	40, 284	21, 648
Sparkling wines.....do....	161, 329	26, 597
Salt.....do....	1, 993, 790	3, 224, 598
Herrings.....do....	729, 113	992, 868
Other fish.....do....	12, 258	6, 564
Tallow.....do....	19, 433	17, 684
Leaf tobacco.....do....	27, 684	10, 372
Cut tobacco and cigars.....do....	778	440
Raw cotton.....do....	1, 285, 515	1, 736, 127
Spun cotton.....do....	193, 690	63, 981
Indigo.....do....	15, 631	23, 392
Illuminating oils.....do....	334, 623	146, 888
Pig. wrought, scrap iron.....do....	1, 028, 227	660, 632
Rough castings.....do....	2, 949, 195	1, 849, 241
Sheet iron.....do....	313, 726	220, 962
Iron rails.....do....	49, 033	8, 463
Bessemer steel rails.....do....	904, 012	74, 003
Lead.....do....	42, 629	60, 550
Raw wool, undyed.....do....	122, 027	65, 937
Unspun wool, dyed.....do....	23, 715	17, 360

*Russia's international commerce—Continued.*

## IMPORTS.

Articles.	First quarter, 1880.	First quarter, 1881.
Artificial wool ..... poods..	5, 481	1, 372
Spun wool..... do.....	78, 500	4, 523
Silk..... do.....	8, 845	6, 990
Soda..... do.....	130, 457	43, 373
Coal..... do.....	16, 745, 259	16, 577, 828
Locomotives, parts thereof, and machinery..... do.....	431, 950	80, 271
Cotton tissues..... do.....	22, 319	16, 054
Woolen tissues..... do.....	34, 729	18, 416
Silken tissues..... do.....	1, 838	1, 524
Linen tissues..... rubles..	388, 986	209, 246

## EXPORTS.

Wheat..... tchetverts..	770, 579	755, 872
Rye..... do.....	624, 094	328, 028
Barley..... do.....	226, 765	73, 506
Maize..... do.....	276, 705	147, 354
Pease..... do.....	48, 786	30, 943
Oats..... do.....	897, 488	396, 428
Oat-meal..... do.....	18, 578	2, 374
Flour..... do.....	28, 283	23, 149
Various cereals..... do.....	185, 085	92, 930
Total cereals..... do.....	3, 076, 313	1, 850, 669
Linseed and hemp..... do.....	155, 103	61, 938
Other oleaginous grain..... do.....	106, 451	30, 683
Oil cake..... poods..	164, 047	146, 775
Butter..... do.....	21, 475	5, 192
Spirits of wine brandy..... { do.....	497, 557	165, 050
..... { degrés..	61, 274, 051	21, 390, 972
Tobacco..... poods..	6, 478	1, 893
Raw sugar..... do.....	102, 045	650
Refined sugar..... do.....	20, 136	30, 574
Beeves..... do.....	8, 115	4, 678
Sheep and lambs..... do.....	131, 425	99, 879
Horses..... do.....	6, 748	5, 639
Tallow..... do.....	167, 478	25, 812
Flax..... do.....	2, 144, 142	2, 015, 508
Oakum, tow, of flax..... do.....	138, 770	100, 612
Hemp..... do.....	522, 795	615, 279
Hempen tow oakum..... do.....	10, 600	12, 933
Flax thread..... do.....	435	1, 479
Hemp thread..... do.....	15, 620	12, 529
Uncurried leather..... do.....	79, 570	68, 310
Curried and Russian leather..... do.....	3, 654	2, 478
Bones..... do.....	3, 631	3, 848
Raw wool..... do.....	212, 342	75, 263
Bristles..... do.....	33, 319	35, 432
Potash..... do.....	881	12, 449
Iron..... do.....	1, 489, 944	29, 729
Rags..... do.....	154, 652	89, 439
Ropes..... do.....	23, 679	22, 082
Crash ( <i>grosses toiles</i> )..... arch..	91, 520	106, 569
Wood..... rubles..	837, 033	603, 069
Peltries..... poods..	20, 397	11, 220

The pood is equal to 36,067 pounds avoirdupois. The tchetvert is equal to 5,9521 bushels. The ruble was quoted January 1, 1881, by the United States Treasury as \$0.65.8.

## MINING AND METALLURGICAL INDUSTRIES OF RUSSIA.

REPORT BY CONSUL-GENERAL STANTON, ST. PETERSBURG.

I have the honor to transmit herewith a statement of the mining and metallurgical industries of the Russian Empire during the years 1878 and 1879.

*Statement of the mining and metallurgical productions of Russia and Finland.*

Articles.	1878.	1879.
	<i>Poods.</i>	<i>Poods.</i>
Gold.....	2, 572	2, 682
Platina.....	126	138
Silver.....	609	697
Lead.....	85, 282	82, 842
Copper.....	214, 864	191, 688
Tin.....	156	125
Crude smeltings.....	24, 472, 540	26, 660, 250
Zinc.....	283, 398	263, 588
Cast iron.....	3, 247, 668	3, 161, 430
Bar iron.....	11, 205, 750	12, 423, 055
Sheet iron.....	4, 656, 544	4, 295, 536
Iron rails.....	824, 876	380, 251
Steel.....	5, 801, 754	12, 820, 812
Steel rails.....	3, 376, 506	8, 980, 573
Coal.....	154, 034, 320	178, 238, 013
Naphtha.....	15, 324, 167	21, 475, 960
Petroleum.....	6, 283, 133	6, 607, 087
Oleagenous products.....	402, 882	933, 788
Asphalt.....	374, 393	560, 875
Chromium.....	955, 367	642, 115
Cooking salt.....	47, 648, 528	49, 929, 989
Glauber salts.....	91, 630	83, 001
Sulphur.....	29, 971	21, 196
Total value in rubles.....	48, 740, 854	42, 040, 825

A decrease was manifested only in such articles as silver, copper, zinc, tin, sulphur, &c., which do not play an important role in Russia's metallurgical industries, whereas the increase is considerable in such important articles as gold, smeltings, iron, steel, coal, naphtha, petroleum, salt, &c., the production of steel almost equaling that of iron.

This, according to the New Times, which furnishes these statistics, was owing to the large government orders, but, as the orders were only for the government's immediate necessities, the activity in the steel branch is doubtless only ephemeral.

The fact that these official orders have in the main been given to mills without the limits of Russian mining circles, which only exist on government subsidies, supports this view.

The orders given by the government were distributed among the provincial governments, as follows:

	<i>Poods.</i>
St. Petersburg.....	4, 996, 920
Orel.....	3, 039, 051
Petrokoff.....	1, 352, 950
Warsaw.....	750, 000
Nichin Novgorod.....	398, 228
Total.....	10, 537, 149

The orders to mills within the radius of the mining districts were distributed as follows:

	<i>Poods.</i>
Perm.....	1, 869, 593
Oufa.....	668, 114
Catherinosloff.....	317, 226
Viatka.....	93, 595
Oremburg.....	17, 950
Abo.....	10, 967
Nyland.....	789
Tokoutsch.....	628
Transbalkan Districts.....	503
Total.....	2, 979, 365

The mills in the first group are obliged to import both their fuel and raw material from abroad.

The number of hands employed in mills and mines was 207,388; in the gold mines 85,658. Two thousand nine hundred and eighty-two steam and hydraulic machines were in operation with a total horse-power of 70,101. During the year there were 611 accidents, 180 of which were fatal, of the latter the larger part took place in the coal mines.

EDGAR STANTON,  
*Consul-General.*

CONSULATE-GENERAL OF THE UNITED STATES,  
*St. Petersburg, June 11, 1881.*

## RUSSIA'S TERRITORIAL ACQUISITIONS DURING THE REIGN OF THE EMPEROR ALEXANDER II.

*REPORT BY CONSUL-GENERAL STANTON, OF ST. PETERSBURG.*

On the accession of Alexander II, the Russian Empire had an area of 18,842,961 square versts, which were distributed as follows, viz:

	Square versta.
In Europe .....	4, 801, 087
In Asia .....	12, 878, 174
In America .....	1, 163, 700
Total .....	18, 842, 961

In 1856, under the treaty of Paris, Russia ceded 10,725 square versts from the territories bordering the Danube and the Pruth.

In 1858, the treaty of Avignon, concluded with China on the 16th of May, presented with precision the frontiers of the Russian and the Celestial Empires. According to the terms of this treaty the whole west bank of the Amoor from the confluent Argoun to the Pacific Ocean was recognized as Russian territory, whilst the right bank of the river as far as Oussouri remained the property of the Chinese government, the district from the Oussouri to the sea remaining provisionally the common property of the two contracting parties. By this settlement the treaty of Avignon proclaimed the incontestable rights of Russia to a territory of 507,552 square versts, which now forms the province of Amoor. In 1859, the capture of Gounip, which completed the conquest of Daghestan, resulted for Russia in a territorial increase of 15,401 square versts in Europe.

The following year the treaty of Peking, concluded November 2, by General Ignatieneor, regulated definitely the question of the possession of the right bank of the Amoor from the Oussouri to the ocean, a question which the treaty of Avignon had left undecided, by assigning the Oussouri district to Russia representing an area of 282,610 square versts.

In 1861, in consequence of the necessity of protecting fort Peroosky the chief station in Central Asia, which was exposed to the attacks of the Nomades, for Djulek was built, General Deboy seizing Din-Kourgane. The movements of the Russian troops in the valley of Syr-Daria in consequence of these operations added 11,944 square versts to the empire.

The continual aggression of the bands of Khokhand on Russian territory obliged the government in the following year to have recourse to an energetic repression, and the expedition of Colonel Kolpakousky in

seizing Tokmak, Pischpek, and Merke in 1862 placed under Russian dominion an area of 15,802 square versts.

In 1864, the submission of the mountaineers of the eastern coast of the Black Sea terminated the Caucasian war, and recognized the possession of about 47,069 square versts of which 32,088 were in Europe, and 14,981 in Asia.

The same year Russia's possessions in Central Asia were considerably increased by the expedition undertaken by General Tcherniew to ensure the security of the Russian frontiers. The expedition resulted in the capture of Aoulie-Ata, of Turkestan, and Tchemkent, an acquisition of 105,822 square versts.

In fine, in 1864, also, the convention of Tchougontchak, concluded by the commissioners charged with the settlement of the Russian and Chinese frontiers in conformance with the treaty of Pekin of November 2, 1860, fixed the southern counter-forts of Tian-Schanf rom the forests of the mountains of Khan Tengheri as far as Khokhand as the limits of Russian territory, assigning to Russia the district of Naryne. But, as the sovereign of Kaschgar refused to recognize this treaty and laid claim to the left shore of Naryne, the actual reunion of this territory to Russia should be credited to 1868.

After the following year there began in Central Asia a series of military operations called forth by the necessity of protecting the frontiers, and for the repression of the aggression of turbulent neighbors, and which resulted in the gradual aggrandizement of the Russian empire in that region. It increased in 1865 after the capture of Taschkent, Maz-Bek, Tchinzaz, Keleoutchi, and of Peken, 40,097 square versts; in 1866, by the occupation of Naon, Khodjent, Oura-Tube, Zaamine and Djiousak, 30,149 square versts; in 1867, 2,597 by the occupation of Yany-Koungour; in 1868, 12,445 by that of Samarcand, Katty, Kourgane, and Ourgout, and 73,525 by that of the valley of Naryne, the right of possession of which had been accorded to Russia by the convention of Tchougontchak in 1864; in 1870, 11,842 by the occupation of the valleys of Zariar-Schane and of Iagnaou; in 1873, 257,703 after the expedition to Khiva, and the convention of August 12, which detached from this Khanate to be added to the empire the territory on the right bank of the Auron-Daria, the delta of the river, and a part of the sea of Aral; in 1874, 281,898 by an organization of a regular government in the Transcaspian district, which, in 1873, had been formed of the territory comprised between the Caspian on the west, Abrek on the south, Ouzboï on the east, and bordered on the north by a straight line drawn below Koungrad so as to join the bay of Merlvi-Koultonk on the shore of the Caspian Sea.

While the success of Russian armies caused the boundaries of barbarism to recede into Central Asia, the cession of the Russian-American possessions and the Aleutian Islands, in 1867, to the United States for \$7,200,000 reduced the extent of the empire by 1,163,700 square versts.

In 1875, by the treaty of April 25, Japan ceded to Russia a part of the island of Sakloaline, over which it exercised dominion, and which represents about 29,500 versts, in exchange for the Archipelago of Kouriles with an area of 4,340 versts.

The same year the Khan of Khokhand, Nasr-Eddin, after his defeat at Makhral, made peace by ceding 17,690 versts to Russia of territory situated on the right banks of the Syr-Daria and of Naryne. But the war party in the Khanate refused to acknowledge themselves beaten, deposed Nasr-Eddin, elected Poulat-Bek in his stead, and renewed hostilities, which did not end until 1876, after the victory of General Skobe-

lerr at Andjdjan, when the remainder of the Khanate was annexed and its political existence terminated. In consequence of this annexation and the expedition to the Alai, the territory of the empire, in 1876, increased 59,561 square versts.

Finally, in 1878, article 45 of the treaty of Berlin restored to Russia that portion of Bessarabia which she had ceded in 1856, the extent of which was 8,128 versts, and by the terms of article 58 Turkey conceded to Russia the possession of the provinces Kars and Batoum with an area of 22,678 square versts.

A recapitulation of the preceding figures gives the following totals:

#### TERRITORY ANNEXED.

Year.	Europe.	Asia.
	<i>Sq. versts.</i>	<i>Sq. versts.</i>
1858.....		507, 552
1859.....	15, 401	
1860.....		282, 610
1861.....		11, 944
1862.....		15, 802
1864.....	32, 088	120, 803
1865.....		40, 097
1866.....		30, 149
1867.....		2, 597
1868.....		85, 970
1870.....		11, 842
1873.....		257, 703
1874.....		281, 898
1875.....		47, 170
1877.....		59, 561
1878.....	8, 128	22, 678
Total .....	55, 617	1, 778, 376
Grand total annexed.....		1, 833, 993

#### TERRITORY CEDED.

Year.	Europe.	Asia.	America.
	<i>Sq. versts.</i>	<i>Sq. versts.</i>	<i>Sq. versts.</i>
1856.....	10, 725		
1867.....			1, 163, 700
1875.....		4, 340	
Total .....	10, 725	4, 340	1, 163, 700
Grand total ceded.....			1, 178, 765

After deducting the concessions made, Russia has acquired from 1855 to 1881, 44,892 square versts in Europe and 1,774,036 square versts in Asia; in all an acquisition of 1,818,928 square versts. Deducting from this the 1,163,700 square versts sold to the United States of America, Russia's aggrandizement during the reign of the late Emperor was 655,228 square versts.

On the 1st of January, 1881, the superficial area of the empire was 19,498,189 versts, of which 4,845,976 were in Europe and 14,652,209 in Asia.

These figures do not include the countries of Kouldja and the Turco-man-Tekes, as the treaties by which they have been incorporated into the empire have not yet been ratified, and the actual area of the Russian empire is somewhat greater than the figures given.

EDGAR STANTON,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*St. Petersburg, June 11, 1881.*

**WARNING SWEDISH FARMERS AGAINST AMERICAN CLOVER SEED.**

REPORT BY CONSUL OPPENHEIM, OF GOTHENBURG.

I have the honor to transmit herewith a translation of an article warning Swedish farmers against using American clover seed; the article forms part of a pamphlet entitled, "Most important agricultural questions of the day," and being from the pen of a well-known agronomist, seems to deserve consideration on the part of American seedsmen and others who have the reputation of our products at heart. I am not in a position to controvert or dispute Professor Nathorst's assertions, though, at first view, it seems unlikely that his criticisms should apply with equal force to *all* American seed, considering the great variety of our soil and climate; some of the varieties used in Minnesota and other Northern States should, so it seems, be hardy enough at least. However that may be, it is in such cases proper to bring the strictures to the notice of our people at home, for a disappointment or deception caused by one American article or product has a tendency to foster a prejudice against all. Our people are, except as regards a few staples, as yet newcomers in the arena of international trade, and any point that can be made against us is sure to be made most of by our competitors. I should suggest that the inclosure be submitted to the Department of Agriculture, with a view to a refutation of the charges if untrue, or to giving our seedsmen such suggestions as are likely to lead to the adaptation of our clover seed to the climatic conditions of Northern Europe.

The pamphlet referred to has had a most extended circulation, and a number of leading newspapers throughout the country have been quoting the article upon clover seed *in extenso*; in consequence of this publicity American seed, of which there happens to be a considerable stock on hand here at present, is looked upon as unsalable.

ERNEST L. OPPENHEIM,  
Consul.

UNITED STATES CONSULATE,  
Gothenburg, April 19, 1881.

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(Extract from a pamphlet called "Most important agricultural questions of the day." (Dagens vigtigaste Landtburksfrågor) published by Professor Halmar Nathorst, director of the Agronomical Institute and Experiment Station at Alnarp (Southern) Sweden.

**AN IMPENDING DANGER TO OUR CLOVER CULTURE.**

A great part of the country is exposed to the danger of being supplied with American instead of with German or Swedish clover seed for sowing. How serious this danger is may be inferred from the following remarks:

The American red-clover has when experimented upon, both in foreign parts and at Alnarps station, given a far lower yield than the German or the Swedish clover, so that it (the American) frequently only produced one-fourth, and sometimes even less, of the yield obtained from the last-named kinds. To this must be added that the American clover during specially severe winters is either totally, or at least to a great extent, destroyed by frost, making it thereby unsuitable for our culture.

Unfortunately, however, American clover seed is very cheap, and this induces many dealers to buy it and resell it without stating its origin, or else to mix it with German or Swedish seed, thereby considerably impairing the value of the latter.

To what extent American red-clover seed enters into the trade of the Scandinavian countries, is barely apprehended by our farmers. It may be mentioned that for the

spring sowing of 1880 there came to Copenhagen by steamer direct from America no less than 8,164, and through other routes 2,392 sacks of American red-clover seed; this quantity of 10,556 sacks, however, is equal to over half the yearly consumption of the whole country. It is noteworthy that the seed coming direct from America is never addressed to any named firm, in order that there may be no positive evidence as to who the importer is, but is always shipped "to order."

The situation in Sweden is no better. The seed-inspecting office in Kalmar reports recently that of the fourteen seed-dealers in that city only two had other seed than American, but of these two, one had worthless seed only, and the other's stock was quickly cleared out, leaving, therefore, none other but American clover seed for sale in that locality. The same circumstances prevail to a certain extent everywhere; the great majority of the dealers offer either clear American or mixed seed only for seed.

That this may be done innocently as well as knowingly is true, for so-called German seed may be American or a mixture of it, even when German seed may be procurable. That even so-called Swedish clover seed may be mixed with American seed has been shown by experience. As proof for these assertions it may be stated that out of 125 S. C. German clover seed samples submitted to inspection at the Danish seed-inspecting office five were found to be undoubtedly American, and several others were found to consist of American seed mixed with other kinds; and of 34 samples of Swedish clover seed there were four (equal to 12 per cent.) having an admixture of American seed.

The following exhibit shows what extent the introduction of American clover seed has reached in Denmark: Of the samples submitted for inspection, there were, in 1875, 44 per cent. of American seed; in 1876, 42 per cent.; in 1878, 83 per cent.; in 1880, 78 per cent; and the situation in Sweden is no better.

How is the farmer to escape the danger thus threatening destruction to his clover crops?

Fortunately, in all places where seed-inspecting offices are within reach, these furnish a ready means of ascertaining whether clover seed is, or is not, of American origin. Several years have now elapsed since the writer of this essay addressed himself to the Royal Agricultural College and urged the importance of having such inspecting stations established throughout the country; whereupon the college sent to the different societies of husbandry a circular recommending the establishment of these useful institutions. Although it took some time before the recommendation was followed, yet the necessity of the measure has gained recognition from year to year; and it may be truly asserted that, if nothing else had called for the opening of such inspecting stations, this question of the American clover-seed ought to make their establishment imperative.

This seed may be distinguished from European seed by two features, namely, through the peculiar weed-seeds it contains and by the size of the grains.

According to this year's report of the Danish seed-inspecting bureau, it appears that in 100 samples of German seed sifted, in 100 samples of German seed unsifted, in 30 samples of Swedish seed sifted, and in 25 samples of Danish seed sifted, none of the weed seeds mentioned below were found; while in American seed there proved to be, in 100 samples from the United States (of which 70 were sifted) seeds of *Ambrosia* in 42 per cent., seeds of *Plantago major*, American, in 73 per cent.; and in 10 samples from Canada (of which 8 were sifted), seeds of *Ambrosia* in 44 per cent., seeds of *Plantago major*, American, in 67 per cent.

Concerning the size of the grains, experiments made with unsifted seed, and also with seed sifted through a sieve having openings of 1 millimeter in diameter, have shown the number of grains per skalpund to be as follows among the different sorts of clover seed:

Description.	Sifted.	Unsifted.
In 100 samples of German seed .....	278, 886	268, 000
In 30 samples of Swedish seed .....	276, 740	.....
In 25 samples of Danish seed .....	281, 254	.....
In 70 samples of American seed .....	324, 000	.....
In 30 samples of American seed .....	.....	310, 370
In 10 samples of Canadian seed .....	318, 750	.....

Through further calculations and trials it was established that with German seed only 8 per cent. of 200 samples were found to contain over 300,000 grains per Danish skalpund\*; with American seed, out of 100 samples 81 per cent. had over 300,000

\* The Danish skalpund is equal to 0.50 kilograms, or to 1.10230 pounds avoirdupois..

grains per Danish skalpund; hence, if a sample contains 278,000 grains per Danish skalpund, the seed will, in 95 cases out of 100, be German; and if a sample contains, say, 320,000 grains per Danish skalpund, the seed, in 94 cases out of 100, will be American.

It must be admitted that some dealers in Hamburg have lately begun to free American seed from its peculiar weeds, and also to remove the smaller clover grains by sifting, making thereby distinction from European seed more difficult, but the danger of these practices is not great, for not only does the sifting make the seed much dearer, but it is also very difficult to completely eliminate the seeds of weeds. In any event, seed thus manipulated could only be made to resemble the fine-grained varieties of German seed, and if these kinds are avoided as being open to suspicion the American seed will thereby be avoided also.

That the American seed has to the experienced eye at least a different color and gloss than the European, is well known, so that in this peculiarity lies an additional means of distinguishing it from other kinds when submitted to the inspecting stations.

In the field, American clover differs from the ordinary kinds in having hairy stems, with the hairs pointing outwards, while the European varieties either have naked stalks, or some few hairs lying close against the stems.

It has seemed to me highly opportune thus to warn against the uncertain, little yielding, and not hardy American seed which is nowadays more generally met with than any other kind of red-clover seed. I have especially purposed to call the attention of our smaller farmers thereto and give them this advice: Buy only such clover seed as has been found to be of German or Swedish growth through examination at one of the inspecting stations.

One caution must however be added: If a dealer advertises that he has for sale inspected and approved seed, and even shows a certificate to that effect, it may nevertheless be the case that he has also a lot of American seed on hand, do not therefore purchase clover seed unless subject to the condition that the trade is only to be consummated after the buyer himself has taken a sample of the seed he received to the inspecting station for examination, and thereby assure himself that it is not American or mixed seed, for it is only by this method that control can be looked upon as completely trustworthy.

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## SWISS CATTLE AND CATTLE TRADE.

*REPORT BY COMMERCIAL AGENT DEZEYK, OF ST. GALLE.*

### THE DIFFERENT BREEDS OF THE SWISS CATTLE.

There are in Switzerland two distinct breeds of cattle, which in the build of their fine figure, yield of milk, aptitude for fattening, and capability of working can hardly be surpassed by any other, and which therefore belong to the most thorough-bred, namely, the Swiss brown and spotted cattle. Both breeds enjoy an equal amount of the above advantages, and have at the same time such well pronounced peculiarities that it cannot be positively affirmed which should in all respects be entitled to a preference over the other. Noteworthy is the nearly uniform repartition, as to their number, in both halves of Switzerland. By drawing an imaginary line from the Lake of Constance to Sitten, in Wallis, and to Mont-Blanc, we have the "brown" in the eastern, and the "spotted cattle" in the western half of the land. And if we extend this line southward to Spain and northward to the Baltic, the same phenomenon reproduces itself; that is to say, in the countries situated to the east of this line we mainly find from the gray-brown to the light grey, and to the west mostly the colored or spotted cattle as the native breed, although in each of these parts single districts may breed the stock of the other part, as, for example, the Austrian highlands mainly possess small red animals.

Among the numerous breeds of the eastern stock the "Swiss-brown" stands foremost. The western spotted stock of Europe comprises, on the other hand, many superior breeds, as the "Dutch," which is the most

milk-yielding, and the several kinds of "English," which evince the most fattening aptitude. Meanwhile the Swiss breed here emulates them in beauty, surpasses them in capability of working, and stands hardly behind them in the yield of meat and milk.

The "brown cattle" change, according to region, from the darkest brown to the lightest grey. Dark-colored animals often have on the belly and between the hind legs a lighter coloring, and always a light streak on the back. More characteristic, however, for the pure-bred is the dark grey tip of the nose, with lighter borders, dark-grey mouth and tongue.

The reddish hair between the horns and in the ears, reddish horn ends or hoofs, reddish or spotted nose, are, on contrary, sure signs of mixed breed, excepting, however, an occasional white star or spot on the breast.

In regard to size it comprises from the heaviest middling to the lightest cast. In regard to the figure of the body, it distinguishes itself through a somewhat slender, comely stature, light, upright head, thin neck, straight and wide back, well settled tail, big white udders, and big lacteal veins.

The heaviest and most stately species of the brown breed is the "Schwyzer," from which the cross breeds of "Einsideln," "Mark," and "Rigi" can be distinguished.

The original home of the "Schwyzer" is in the cantons of Schwyz, Zug, Lucerne, Freienamt, Gaster, Glarus, and in the south half of Zurich; although on account of their beauty and utility they are also bred in the neighboring cantons. The highland species are smaller but yield abundant milk; these are the "Appenzell" and "Toggenburg" breed, which are not purely preserved, and vary much in color, and the still smaller breed of "Untenvald," "Oberhasli," and the almost black "Wallis" have still less pronounced signs of pure breed.

The "spotted cattle" of the western half of Switzerland are of white color, with strongly-marked red, yellow, or black spots; and often of entirely red or black color, with merely a white sign on the forehead. The flesh color of the tip of the nose, of the mouth, and of the tongue are here also characteristic signs of thorough-breed; they are more heavily built, have a bigger or more abundant paunch, the ribs are curved more arch-like, and the tail is set higher than the brown cattle; the well-formed bag falls somewhat back from under the cover of the powerful muscles of the hind-legs and seems smaller.

The "Freiburg" breed represents the heaviest and the biggest animal found in Switzerland; it is most always black, but is also red spotted, big-boned, with a somewhat thick head, and of coarse-fibered meat; its original seat is in "Bulle" and "Romont" (Freiburg), wherefrom it has widely spread itself into western Switzerland.

A trifle slighter, but of a more outstretched and comely round figure is the pretty pale-red spotted "Simmenthal" and "Erlenbach" breed, native of the valley of "Simmen" and "Saane'n." The "Frutig" of the Kander Valley and the "Ormont" breed of the Eastern Waadtland and Unterwallis are nearly like, but somewhat smaller than the former; poorly-developed bags and high-rooted tails often appear in the "spotted," while in the "brown cattle" frequently occur flat ribs, narrow back, and even hock. Thousands of heads of cattle which Switzerland is obliged to get yearly from abroad, to cover the deficit of her meat supply, are brought to the markets mostly by foreign dealers; but there are in the border cantons numbers of Swiss cattle dealers who regularly visit the foreign markets, buy their cattle there and import them direct. There are, for example, in the canton of Appenzell, entire

families who from father to son are always cattle dealers, and in one case particularly, there are thirty heads of family bearing the same name, all of whom are in the same cattle business.

By examining the market returns of the cantons of St. Galle, Thurgau, and Appenzell, and by drawing from them an inference for the whole country, it can be concluded that fully 700,000 head of full-grown cattle are yearly brought into the markets, which are held weekly and monthly, and an equal number to the annual fairs. On the strength of the above figures it must be acknowledged that cattle trade of such dimensions in a country scarcely numbering 3,000,000 inhabitants is of an economical importance not to be undervalued.

The butchers of East Switzerland draw their provision direct from the markets of St. Margarethen, Amrisweil, Weinfelden, and Lechtensteig, or procure them through the intermediary of their commissioners.

In all Switzerland, not excepting even the largest cities, there are no extensive slaughter-houses; the smallest village has its one or two butchers, who provide themselves at a time, at such markets, with just so much stock as they think they will need for the ensuing week or fortnight, say from one to three pieces, which they buy most always at a guess and without weighing; but it happens of late that butchers bargain for live or dead weight, reckoning that in worst case the hide and garbage remain as pure profit to them; generally every head of cattle leaves them a "net" of 40 to 50 francs.

As characteristic of the Swiss cattle trade, it may be mentioned that where it is bargained for single heads the prices are always fixed in Napoleons (25 francs); thus, for example, instead of 450 or 500 francs they will be made up in 22½ or 25 Napoleons.

The bigger butcher-masters of East Switzerland buy, as a rule, heavy, well fattened oxen of the spotted race, which are generally bred in West Switzerland; the butchers of small towns and villages, however, buy mostly cows of the brown breed, more frequent in the East and Central Switzerland.

The finest young cows are bought up by the Italian dealers at the rate of 22 to 28 Napoleons per head. In the latter part of the summer they already begin to wander over the Alps of the cantons of St. Galle, Appenzell, Schwyz, and Granbrinden and make their choice of the numerous herds, which at that season are driven up there by the Swiss dealers for fattening upon the exquisite Alpine grass; later in the autumn or early winter these Italians visit again the stables of the Swiss farmers of said cantons; they buy otherwise none or little in the markets and get their new stock over the Alps in droves of from one to three hundred, towards Milan, where they sell them with considerable profit in lots of from two to twenty, always per pair, to the wealthier class of Italian farmers and landed proprietors; these latter usually keep them from four to six years, that is to say, as long as they give plenty of milk, after which they fatten them up and often sell them again to the Swiss butchers.

The Italian dealers are always accompanied by their interpreters, to whom they furnish everything in the shape of subsistence, and they get 5 francs besides for every head thus bought or sold.

It is remarkable that Swiss farmers make a point of fattening calves, I suppose, because they can realize good profits on them; they are fed on milk and eggs, curried twice a day, and are kept dry, and in the dark.

The prices of all kinds of meat are highest in the summer season, owing to the influx of foreigners, who crowd the hotels, and whose

number during a season is estimated to surpass 20,000, seeking diversion on the highlands of the Grison and Engadin.

The cattle markets are divided into weekly, monthly, and yearly; the weekly markets are especially for the sale of fattened animals, destined for immediate consumption, while the annual fairs are established more for the trade in breeding and agricultural stock; and the monthly markets comprise, so to say, both the above objects.

Nearly every country place or railroad junction has its weekly market, to which are brought on an average 150 small and 300 head of larger animals, whilst the monthly, and more particularly the annual fairs, held either in the spring or in the autumn of the year, and upon a much larger scale, often number 3,000 animals.

The more important annual fairs are held in the months of May, October, and November; there are none in summer, as the cattle are up in the mountains. As "leaders in prices" may be mentioned the following annual fairs:

In the canton of Granbunden, that of Chur, which is connected with a prize show, that of Flanz, Thusis, Grusch, &c.

In the canton of St. Galle, Appenzell, and Glarus, those of Ragaz, Sargans, Buchs, Gams, Altstätten, Sidwald, Kaltbrun, Wye, &c., and also the great autumn fair at Schrum, Vorarlberg.

For Central Switzerland, that of Einsiedeln, Schuyz, Arth, Altorf, Sar-men, Stanz, &c.

At all the above fairs, the "brown cattle" of Bunden, Toggenburg, and Schwyz breed form the bulk of trade.

The chief fairs for the "spotted cattle" are held at Erlenbach (Thurgan), Reichenbach (Berne), Unterseen (Thurgan), Langnan (Berne), Langenthal, Herzogenbuchsee (Berne), Bulle (Freiburg), Sursee (Berne), Weinfelden (Thurgan), &c.

Every larger town in Switzerland has moreover at least one spring and one autumn fair. At many places, though, the market life is entirely extinguished by the radical changes wrought in the highway system by the net-work of railways, so much so that many of them only exist in the almanacs, whilst new ones are from year to year becoming more frequent.

With a view of improving the breed of stock, most all the cantons designate a prize to be awarded at the district or cantonal cattle show.

The Swiss (national) agricultural exhibition\* takes place next October (as referred to in my despatch No. 71), at Luzerne.

There was also a foundation laid to a stock register, in which all the animals possessing characteristics of thorough breed are registered under a proper name. This is kept up at Berne by the department of agriculture and commerce; the consulting of which is earnestly recommended to those intending to make purchases as the most authentic guide to point out the best and purest breed both in brown and spotted Swiss cattle-stock, designated in two separate volumes.

Although Switzerland has always been considered as an eminently cattle-breeding country, the consumption here nevertheless by far exceeds the production. The custom-house returns show that there are every year about 80,000 head more cattle imported than exported. Switzerland receives preserved meat, ham, and sausages from Italian, German, and American sources for over one million of francs; such are, for example, the "salamis" of Milan, the "cervetat" sausages and smoked blood and liver sausages of Gotha and Frankfort-on-the-Main,

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\* For full particulars of this exhibition, see pages 617 and 13, No. 6.

the hams from Westphalia, and the corned beef, hams, and pork of America.

But, with the exception of the latter, all the aforesaid articles may be put down as delicacies. As only the wealthy are able to pay fancy prices for such luxuries, it cannot be expected their use should become generalized.

The prices of meat are very high in all Switzerland. Fresh beef ranges from 1.50 to 1.70 francs per kilogram; fresh veal from 1.60 to 2 francs per kilogram; fresh pork from 1.60 to 1.80 francs per kilogram; smoked beef from 2.50 to 3 francs per kilogram; salt beef from 2.30 to 4 francs per kilogram.

These prices will remain high as long as Switzerland continues unable to supply her own wants by an increase in breeding live-stock, which can hardly be expected, notwithstanding the strenuous efforts of several agricultural societies, because the consumption always increases in proportion with the steady growth of the population. It is, moreover, averred that the prices of meat will advance from year to year; but as the importations of American meat, pork, and ham have thus far met with splendid success, they bid fair to assume with time enormous proportions.

The Swiss have begun but lately to look with favor upon American meat, and show a more particular liking for the "Wisconsin meat," which is sold here, prepared just as it is customary for the Swiss butchers. It is only eighteen months since the first shipment of the Wisconsin meat arrived in this country, and it has already three retail shops in Winterthur, Gossan, and St. Galle. With the exception of bacon and lard, the other sorts of American meat are not much sought for. This is owing undoubtedly to their outward appearance and the manner in which they are prepared, while the Wisconsin meat finds always a ready market. This meat is prepared in the well-known Swiss colony at New Glarus, Wis., by a born Swiss, Mr. Häslly, and I would advise all enterprising Americans who intend to do business in this article with Switzerland to inspect, first, the fattening, slaughter, smoking, and packing arrangements of Mr. Häslly's establishment, and when they have succeeded in producing similar articles, to open meat shops in the larger cities of Switzerland in their own name, and precisely under the "same name of the firm," without letting their products reach the market through the intermediation of agents; the public will otherwise have no confidence unless they can deal directly with the original producer, which, they say, is a guaranty that only healthy animals are worked up.

One must not lose sight of the intrigues which envy can bring into play to injure, and, if possible, to shut out from competition American meat. It is unfortunately but too obvious the stress farmers, cattle dealers, and butchers lay here upon destroying, by all available means, any growing foreign industry which menaces to seriously reduce their own, by inventing and skillfully circulating all sorts of tales of trichinosis and other diseases prevailing among American cattle and hogs, the consequences of which rumors might result in incalculable damage should the embargo upon American pork be resolved by the Federal Council at Berne, as reported in my despatch No. 69, of March 17.

Mr. Häslly, of New Glarus, only uses well-fattened and healthy animals, pickles them without saltpeter, and smokes or dries them after the Swiss fashion—that is, in a strong current of cold air—so that the meat retains

much of its original juice; it will then be carefully packed, so that it reaches the Swiss market in a prime condition. He has it retailed at fully 20 per cent. cheaper than any Swiss butcher can afford. The dried beef enjoys the predilection because it looks and tastes exactly like the smoked beef of the canton of Graubunden. I can positively affirm that the working classes—"ergo," the whole Swiss population—would hail with genuine pleasure the opening of such American meat shops in every town of Switzerland.

A. J. DEZEYK, *Agent.*

UNITED STATES COMMERCIAL AGENCY,  
St. Galle, April 12, 1881.

## THE OPPOSITION TO AMERICAN MEAT IN EUROPE.

*REPORT BY CONSUL MASON, OF BASLE.*

On the 26th of February, eight days after the promulgation of the decree of the French Government prohibiting the importation into France of salted pork from the United States, the undersigned had the honor to submit to the Department, in dispatch 20 from this consulate, some observations on the subject of that prohibition, which were given in substance to the American press.

Some of those statements seem to have been received in certain quarters with incredulity. It has seemed incomprehensible to various American journals that the Government of the French Republic should have formally prohibited the importation of salted meats from America, and that other governments should have manifested such readiness to follow that example, when not a single case of trichinosis could be established as having resulted from the enormous consumption of those meats in Europe during the past twenty-five years.

I beg therefore to submit as concurrent testimony the official protest of the syndicate of commerce of the city of Bordeaux and its demand that the French decree of prohibition be repealed. This protest, which was issued after the disastrous effects of the decree of February 18 had become apparent, states so clearly and forcibly the objections of the French people to the prohibitory measure and fortifies so powerfully the disputed points in the earlier dispatch above alluded to, that I have translated it into English and inclose herewith printed copies, in the hope that the Department will regard it worthy of the widest circulation in the American press. It will, perhaps, be sufficient that no statement made in this circular of the Bordeaux syndicate has been thus far successfully disputed. If it accuses the French Government of taking an important and unjust step through ignorance of facts or insincere motives, we have only to remember that this is French testimony of the highest mercantile character against a declared policy of its own government.

Not less extraordinary than the French decree itself has been the eager and unquestioning readiness with which it has been echoed and accepted by certain smaller governments, notably one of the French cantons of Switzerland. In the canton of Neuchâtel there was published recently in the official organ a proclamation from the minister of the interior to the following effect:

\* \* \* The decree promulgated by the Government of the French Republic, interdicting the importation of salted pork meats from the United States of America, calls our attention to the dangers threatening the public health from the consumption of

those meats. It is well established by microscopic examination that the *greater part of these meats*, which in the forms of hams and *conserved canned meats* constitute a portion of the public sustenance, contain trichinæ in greater or less proportions, and that their use as food, if not preceded by thorough cooking, so as to entirely destroy these parasites, may communicate to man the disease called trichinosis.

The peculiar kind of intelligence manifested in this proclamation is difficult to deal with when clothed with official dignity and authority. The most determined European enemies of American meats have never before ventured to assert that more than one or two per cent. of those meats are trichinous. It is generally known that canned meats sold in Switzerland are not only thoroughly cooked as the first essential of their preservation, but also only include beef, mutton, and the tongues of calves, sheep, and oxen, which are not subject to the trichinous infection at all. When, therefore, it is officially stated that *more than half the American hams, bacon, and cooked conserved meats* from America are trichinous, the magnitude and density of the error presents some difficulties. The canton of Neuchâtel sells 54 per cent. of its annual product of watches to the United States for nearly eight millions of francs. It imports from the same country only 150,000,000 francs, principally cured and canned meats, and even this small trade has been for the present practically destroyed by the proclamation above alluded to. Not a single case of trichinosis has ever occurred in that canton, nor, so far as I can learn, has there been any discovery there of trichinæ in American meats. I will further report that this consulate is in correspondence with the cantonal government of Neuchâtel on this subject, and will counteract by all available means the effects of its hasty proclamation.

There are abundant and unmistakable evidences that the artificially-created panic respecting American meats has reached its highest, and the tide is beginning to turn. From the first *the people* have taken no part in it, and as they are the principal sufferers from the increased cost of meats, they begin to complain. Even the butchers and pork producers find that, though prices have advanced, sales have greatly diminished. The panic has seriously injured the demand for domestic as well as imported meats, and many of those who at first favored prohibition now oppose it. I herewith inclose a leading article from the *Journal de Genève* of a recent date (with a translation of the same), which concedes unreservedly the entire ground of dispute as to the wholesomeness of American pork and the true motives which underlie the present agitation. The further the discussion is continued the more obvious becomes the logic and causes of the prohibitory movement. The utter failure of the alarmists to present a single authenticated case of trichinosis in France, England, Belgium, or Switzerland which could be traced to the use of salted American meat has left them practically without a tenable case.

Upon the general question whether salted and cured pork can under any circumstance infect man or animals with trichinæ, I have to present the following convincing evidence:

As reported in my dispatch February 26, the leading meat importer of Basle had for a period of two years subjected all his meats, including those from France and Germany, as well as those coming from America, to the examination of the official city inspector. In all these meats there were found occasional pieces in which the microscope detected traces of defunct trichinæ. These infected pieces were put aside, and for a space of six months were experimentally fed to hogs, dogs, cats, and chickens under the personal supervision of the municipal slaughter-house director. At the end of six months these animals were killed

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and their flesh carefully examined. In not one of them could the most skillful inspector discover the slightest trace of trichinæ. It was a result of this experiment that the inspection of imported meats was voluntarily discontinued by the city authorities.

It is felt that this record of observations will be incomplete without some definite practical suggestion as to the most practicable methods of inspection. The exaggerated prejudice against American pork may be exposed and the prohibitory decrees repealed, but I beg to repeat that in my opinion the European traffic in American salted meats can never be fully restored until a system of official inspection is established which shall carry with it the weight and force of Federal or State authority. From the working of the municipal inspection systems in several German cities, notably Berlin, it is found that a capable inspector can thoroughly examine one hundred pieces during an ordinary working day. Young men of ordinary education, but strong, clear eyesight, might be trained in a fortnight, under skillful microscopists, to be perfectly competent inspectors. In Chicago or Cincinnati this system might be applied, and inspectors trained for service in the large packing-houses. Estimating their wages at \$3 each, the cost per hog for the actual work of inspection would be 3 cents. The official inspector, having supervision of the practical microscopists, could seal and authenticate their work. Until this or some similar system is adopted the 1 per cent. of trichinous hogs, which is conceded to exist in the United States, will prove a serious obstacle to the maintenance and further development of our export trade in meats. The European meats, with which our own come into competition, are nearly all officially inspected; and until American hams and bacon bear the sale of official examination they will be, in presence of existing prejudices, at a serious disadvantage in the markets of the Old World. It is within the power of the American meat exporters to turn the momentarily disastrous pork panic of 1881 into an opportunity for making their meats more widely and favorably known than ever before. They are fighting a defensive battle, but they can win it.

FRANK H. MASON,  
*Consul.*

UNITED STATES CONSULATE,  
*Basle, April 29, 1881.*

## PROTEST OF THE SYNDICATE OF LARD AND SALTED MEATS OF BORDEAUX

### AMERICAN SALTED MEATS.

On the 18th of February, 1881, a decree, rendered on the report of the minister of agriculture and commerce, interdicted throughout the territory of the French Republic the importation of salted meats from the United States of America.

It is proper to examine, in the report which preceded the decree, whether a measure so grave, which strikes a blow so terrible to so important a branch of commerce, causes a serious derangement in the sources of public food, exiles from our ports so valuable an element of freight (60,000 tons), has been inspired by facts which adequately explain the precipitation with which it has been adopted.

We remark, in the first place, that the minister, in invoking the motive of hygiene, has not shown in his report any facts justifying his own fears; so, as he has shown none, we are justified in supposing that none existed.

It is not within our province to discuss the question from a scientific point of view; we limit ourselves in this protest to a review of the discussion which took place in the Academy of Medicine during the sessions of 15th and 23d of February, 1881, and in which it was decided that the danger resulting from eating trichinous pork is completely destroyed, first by salting, and above all by our culinary system, which secures or all our meats sufficient cooking.

One single case of trichinosis has occurred in France, viz, at Crespy en Valois (Oise), in 1878, and that was caused by the meat of a hog raised and slaughtered in France.

This single fact serves to demonstrate that the French animals are as susceptible as those of America to infection with trichinæ. And behold! even this isolated charge against French pork is disputed by the honorable Mr. Bonillaud, member of the Academy of Medicine, professor of the faculty of Paris, who attributes that fatal illness to a typhoid disease.

Since then, during twenty-five years, there has been introduced into France from 400,000,000 to 500,000,000 kilograms of American salted meats, and the doctors have not established beyond dispute a single victim of trichinosis among the consumers of these enormous quantities. Is it then necessary to excite alarm and to have recourse to prohibitory measures?

We have now to examine the situation of different European nations, which the minister cited as having decreed a similar prohibition. Contrary to the documents which have been furnished to him, this prohibition does not exist in any part of Germany; to convince oneself of this, it will be sufficient to consult the official statistics of the ports of Bremen, Hamburg, and Stettin.

The Government of Germany has only prohibited the importation of meat for sausages. This meat, cut very fine, was only designed for consumption in that country. Its prohibition was not caused by the discovery of trichinæ, but solely on account of its unwholesomeness, resulting from the nature of its preparation. These meats, packed in barrels and very slightly salted, were generally sufficiently well preserved, but it sometimes happened that during the voyage they underwent a peculiar kind of fermentation, which, in the opinion of the German savants, rendered them unfit for food.

The prohibition does not exist in Spain. In that country it was decreed in March, 1880. We need not show the motives which provoked this measure, since the interdiction was repealed five months later, that is to say, on the 1st of August, 1880. American pork has to-day free entry into Spain.

The prohibition does not exist, except in Italy and Portugal. We have now cause to think that in the latter country the duty has been repealed recently, for in the exports made from New York in January last we see Portugal charged with 35,000 kilograms of salted pork. But in the absence of official statistics we affirm nothing on this point.

In Italy, the government, yielding to the pressure of the home packers and hog growers, who found their industries depressed to the lowest extent by the competition of the American products, declared them prohibited. This measure could not have there the same disastrous consequences which we foresee for our country, since Italy produces more pork than its people consume. To show how exaggerated are the apprehensions of our minister of commerce, we feel constrained to present some observations, sustained by statistics, which we guarantee as perfectly exact:

The number of hogs killed in the Western States of America from the 1st November, 1879, to the 31st of October, 1880, were ..... 12, 190, 000  
The packers of the Eastern States, including the ports of New York, Boston, Philadelphia, and Baltimore, killed during the same period ..... 2, 415, 000

Making a total of ..... 14, 705, 000

In these figures are not included the hogs killed by the butchers to be consumed in a fresh state. We know, however, that the number of these has been considerable.

We have here only to consider the salted meats. The 14,705,000 hogs have yielded a meat product of 1,404,000,000 kilograms. If we deduct the 265,000,000 kilograms quantity of lard produced, there remains of salted meats 1,139,000,000 kilograms.

From this colossal sum the United States have exported during the same months 387,740,000 kilograms, retaining for their own consumption 751,260,000 kilograms, or 15 kilograms 300 gr. (about 32 pounds) to each inhabitant in a population of 49,000,000 of people.

The 387,740,000 kilograms exported are thus divided:

	Kilograms.
Great Britain .....	274, 821, 000
Continent of Europe .....	89, 339, 000
West Indies and Central America.....	23, 580, 000
Total .....	387, 740, 000

The population of Great Britain is 30,000,000, so that the average consumption of American pork is about 9 kilograms per capita. The 89,339,000 kilograms consigned to the European continent include the shipments to France, Belgium, Holland, Denmark, Sweden, Norway, Germany, Russia, and Spain. Our country is included in this estimate for about 32 000,000 kilograms brought by direct transportation, and 5,000,000 or 6,000,000 kilograms coming from other ports of Europe; on the other hand, we have exported some millions of kilograms into Spain and Switzerland.

The average of our consumption is about 1 kilogram (2 pounds) per individual.

Why then should two great countries, such as England and the United States, which are quite as careful as ours of the health of their inhabitants, remain indifferent to the dangers which menace our French consumers?

But if the danger were as serious as it is pretended, what ravages, what death would it have caused among their population! A number of fatal cases would have been proved beyond dispute, and it is not to be doubted that those governments, having recognized the peril, would have vigorously suppressed its causes.

The decree of February 18 has had the effect to arouse the cupidity of the protectionists of England and Belgium, countries in which the consumption of American meats is much greater than here.

At London an interpellation has taken place in the House of Commons. According to a dispatch of February 22, the Right Honorable Anthony John Mundella, secretary to the minister of the interior, said that "no official information had been received on the subject of the interdiction of American pork in France, Russia, Italy, Austria, Spain, Portugal, or Greece."

"The interdiction in England would bring great hardship to the poorer classes. Moreover, it would not be sufficient to merely prohibit the importation of pork from America, since the trichinae exist in Germany and in France, and since other countries receive American pork England would in turn receive it indirectly from them."

At Brussels the minister of the interior, being interrogated, responded categorically that no case of trichinosis had ever been proven to have occurred in Belgium, and he had therefore taken no prohibitive measure. He further added that it was understood that in Germany the precautions taken to secure inspection of hog meats were unnecessary and causeless.

Italy alone maintains prohibition rather as a measure of protection than hygiene, and should France, where free trade, by the grace of God, has taken such deep root, seek to imitate her?

Is it to be doubted that a measure so grave will have a disastrous influence on our export trade by encouraging the protectionist influences which surround Congress at Washington? We know that great efforts are being made to secure an advance in the import duties on wines and silks. Why furnish the enemies of free trade with such powerful arguments against the reduction of the tariff, which will encourage the Senators and Representatives from the West, whose interests are to-day directly sustained by the decree against which we protest?

To the foregoing considerations we wish to add that prohibition, the object of which is to afford us protection from a danger entirely hypothetical, would have as its effects:

1. To deprive the poor classes, without affording them an equivalent, of an article of food, the wholesome and substantial qualities of which they appreciate, and which they in many cases prefer to the French meats.

2. To diminish the consumption of French pork as well as that of American production; and our pork dealers, who have appeared to approve the measure, are on the other hand already constrained to protest against it because they find their receipts seriously diminishing.

We insist, finally, that the decree is ineffectual, because, if the barriers are set up against America, our ports are still open to European imports.

But such a distinction being impossible, since a knife can readily give a piece of pork various different forms, the American meats would continue to invade our frontiers, under the pretense of having had another and different origin, to such a degree that this deplorable measure would accomplish the ruin of our markets for the profit of neighboring countries, without in any sense protecting the public health, which would continue to be threatened by the same imaginary dangers. In view of such results we demand that the government repeal the decree of the 18th of February, a decree worthy of another epoch; that it take the necessary measures to examine all meats, from whatever source, at the moment of their entry into France; and that it remind the public that pork of all kinds should never be eaten without being first thoroughly cooked.

In yielding to our demand the government would really attain the desired result and establish the safeguards most efficacious for the public interests.

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### AMERICAN MEATS.

[Extract from the Journal de Genève.]

It appears at present that the current reports with regard to the danger arising from the use of American pork have been enormously exaggerated, if not entirely unfounded. The ministers of the interior at Paris, London, and Brussels have acknowledged before their respective Parliaments, in response to the interpellations

addressed to them on this subject, that up to the time of speaking *no case of trichinosis resulting from the use of these meats has ever been authentically proved to have occurred in France, Belgium, or England.*

The persistence of these reports, so injurious to the reputation of the products of the United States, is easily explained by the fact that there are two numerous classes who are interested in destroying the demand for these products. The enemies of American salted meats are, in the first place, the producers of European meats, who see with dismay the gigantic development of resources across the Atlantic, destined to revolutionize the entire provision trade in the old world; and, in the next place, there is the ring of speculators in the United States, interested in the decline of pork, and who endeavor to break the market prices, at present very high, by frightening the consumers with stories of trichinæ, hog cholera, &c.

An idea may be formed of the extent to which speculation in pork in the United States reaches by the statement that one firm in Chicago (Armour & Co.), is said to have made in one season, by a skillful combination, a profit of thirty millions of francs.

### TRICHINÆ IN EUROPEAN AND AMERICAN PORK.

REPORT BY CONSUL MASON, OF BASLE, SWITZERLAND.

From frequent inspections, conducted personally by the principal meat importers of Basle, I deduce the following facts with reference to the prevalence of trichinæ.

It is generally understood that the domestic swine of all countries are more or less liable to be infected with trichinæ. The danger and degree of this infection vary with different seasons and conditions, but the following is, perhaps, a fair average statement of the comparative degree of trichinæ infections in the meats principally used in this country. In native Swiss pork, 1 piece in 2,000; Westphalian meats, 1 piece in 200; from Berlin and Northeast Germany, 1 piece in 250.

Among the hogs of the Lower Rhine Valley 1 live hog in every 100 is infested with trichinæ; in Brunswick, 1 in 5,000; in Gotha, 1 in 1,800; in Schwerin, 1 in 550; in Kiel, Prussia, 1 in 260; and in some parts of Sweden, 1 in 63.

The conclusion is, therefore, that the hogs of the United States are not more subject to trichinous infection than those of Europe.

There is no definite evidence to show that any danger to human life or health has been incurred in Europe by eating salted and seasoned meats imported from America; in fact, all testimony goes to prove that the salting and curing process destroys the vitality of the parasite, but the fact that it exists in a more or less developed state in perhaps one-half of one per cent. of American meats, serves to confirm prejudices and seriously disturb the market. Any person, with an ordinary microscope, can detect trichinæ where they exist in freshly-killed hog's meat, but it requires an expert with a good glass to find them in salted and seasoned pork. They have been found, nevertheless by the Basle importers in some American meats which had been twice inspected, once at the packing house and once at the place of shipment.

The result of all the recent agitation of the meat question, since the announcement of the prohibitory decree by the French Government in February last, has been a falling off of from 12 to 15 per cent. in the import of American meats into Switzerland. In the cantons of Berne and Zurich the local butchers and meat dealers have influenced the cantonal authorities to refuse admission to American hams and bacon on the unofficial certificate of a private inspector, although meats are admitted from Germany, the inspection of which, although nominally "offi-

cial," has been obviously hasty and superficial. American meats are still, however, sent into the cantons of Berne and Zurich to some extent under invoices which make it appear that they came from Germany. To this extent only, so far as I can ascertain, is there a practical discrimination in Switzerland against American meats.

#### CONCLUSIONS.

The most obvious conclusions to be derived from the existing facts would seem to be :

I. That the fact must be recognized that an average of 1 per cent. of the hogs slaughtered in America during certain seasons are infected by trichinæ. Farmers should be made to understand that the danger of this infection is greatly increased when the hogs are permitted to eat decaying animal matter.

II. All pork slaughtered for export should be carefully inspected and trichinous carcasses rigidly condemned. The partial loss of 1 per cent. of the hog crops is trifling compared with then impending ruin of the pork-export trade.

III. There should be published under national authority, and distributed for republication throughout Europe, clear and complete statistics showing the extent of the hog product in the United States; the immunity of the American people from trichinosis notwithstanding their large consumption of native meats; the numbers of hogs which die yearly of cholera and the accidents of transportation, *and what becomes of them*, and finally, the actual values of land and corn in the pork-growing States, by which it can be shown that American meats, notwithstanding their superior quality, can be legitimately sold in Europe from 10 to 20 per cent. cheaper than native meats. It is often published and believed in this country that the hogs which die of disease or are killed or suffocated in transportation are packed for European markets; and that the comparative cheapness of American meats is due to their uncertain quality.

The widespread prejudice against American meats can be adequately met and overcome only by a rigid system of official inspection, by competent experts, appointed by national or State government, and empowered to use a seal or other device representing governmental authority. To the European mind an *official* seal is inferior in potency only to the edict of royalty itself. American pork of all kinds is conceded by intelligent and fair-minded dealers to be the best in the market, and it is growing better year by year, as the methods for curing and packing for European consumption are improved. Through a combination of adverse interest and misfortunes, for some of which careless and avaricious American exporters have been responsible, these meats are temporarily under suspicion, but there is apparently no difficulty in the present situation which a prompt, positive, and thorough policy may not successfully meet and overcome.

FRANK H. MASON,  
*Consul.*

UNITED STATES CONSULATE,  
*Basle, April 19, 1881.*

## POLYNESIA.

## THE HAWAIIAN RECIPROCITY TREATY.

*REPORT BY MINISTER COMLY, HONOLULU.*

The influence of the reciprocity treaty upon the increase of our carrying trade between the Hawaiian Islands and the Pacific coast, and upon the still larger increase of our ship-building for Hawaiian owners, has been one of its most gratifying results.

I have referred to this subject from time to time, and more recently by last mail, in my No. 164, showing by analysis of custom-house statistics the proportion of American shipping to all other, and the like suggestive facts.

Three years and a half ago, when I first reported for duty at this post there was but one island steamer; now there are eight and more ordered—every one of them but one, American built. The increase in sailing vessels has been still larger. Besides this, by far the larger portion of vessels sailing foreign in the Hawaiian trade have remained under the American flag, so that they do not appear in the Hawaiian custom house statistics. For example, one firm in San Francisco, engaged exclusively in the Island trade, had added four new fast-sailing cruisers to this trade within the year, all under the American flag.

Of those vessels under the Hawaiian flag there are chiefly two classes: (1.) New ships built in the United States for Hawaiian owners, and (2) ships formerly under the American flag transferred to Hawaiian owners, and Hawaiian flag.

In one house German capital has purchased a number of American vessels and put them under the American flag. Part of the Glasgow machinery which rubbed a sore spot into the treaty, as I have so often mentioned, was brought here in two large American vessels, direct from Scotland.

It is but fair and just to admit that probably all this increased demand for American ships and ship-building grew out of the reciprocity treaty, and would never have existed except for its generative power. This generative power is reflex as well as direct. It creates a magnificent increase of Island products; this creates both demand and capacity for a large increase of the import trade from the United States; and these combined create the demand for carriers under the American flag, and for American factors, agents, bankers, insurers, and producers of almost every kind.

The trade with the islands is but a drop in the bucket. But, compare the total amount of her exchanges between the Hawaiian Islands with those between all other countries and the United States; then apply to this last the same ratio of increase in our carrying trade and ship-building which we have gained here; the result, it seems to me, would show that, under like conditions of prosperity everywhere, all fear of the American flag disappearing from the sea might be abandoned.

Assuming that there would have been the same amount of Hawaiian sugar produced without the treaty—which there would not, in fact—add, that all of such sugar would have come to us, and would have paid duty, there would then be the bare and inexorable fact of the loss of

certain demonstrable dollars to the United States Treasury, in the shape of duties abandoned under the treaty.

It is true also, on the other hand, that the gain to the United States does not resolve itself into demonstrable dollars. It is somewhat vague and incomputable. The effort to balance the loss and gain is thus difficult. It is like trying to settle the net gain where one has given away a sum certain and found a swarm of bees.

If our commercial policy with the Sandwich Islands is to be taken as only part of a great system, intended to take in and bind together all the two great continents and their adjacent islands on our side of the world, it seems to me that there are such grand possibilities to the near future of the United States in such a scheme as would make the reciprocity treaty with these islands a conspicuous landmark in our commercial history. Considered simply by itself it would seem comparatively feeble and inconsequent. Its value to the islands is very great, undoubtedly; that goes without telling. Our loss in revenue, also, is plain enough to any one with wit enough to compute the customs due on some millions of pounds of sugar, rice, &c. Our gain, I repeat, is as incomputable as the future activity and productiveness of a swarm of bees. After all this, there are many millions of American capital invested here under and because of the treaty.

JAMES M. COMLY,  
*Minister.*

LEGATION OF THE UNITED STATES,  
*Honolulu, Sandwich Islands, June 6, 1881.*

## NOTES.

## CONSULAR.

Consuls are expected to keep the following paragraph, from the Circular Letter of July 1, 1880, constantly in view during the preparation of their reports for these publications. There is no subject so interesting to American exporters and manufacturers, as that which treats on the enlargement of our export trade in the several consulates:

You are therefore requested to prepare and forward to this Department reports upon all subjects which may be calculated to advance the commercial and industrial interests of the United States, *bearing in mind, however, while giving yourselves the broadest field for the accomplishment of the work herein assigned you, that your principal efforts must be directed to the introduction of American trade into, and the enlargement thereof in, your several districts.*

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**The Continental Exposition at Buenos Ayres.**—Consul Baker reports, under date of June 10, to the Department of State that the Continental Exposition of Buenos Ayres, which, owing to political troubles, was postponed last year, is now definitely fixed to take place February 15, 1882, and forwards the official notification of the same for the benefit of those desiring to exhibit their products and manufactures. The use of the plaza "Once de Sitiembro," the largest and most eligible site in the city, has been conceded by the national government for the purpose.

**Cosmos Fiber, or Vegetable Wool.**—The Department is advised by Consul Potter, of Crefeld, that—

During the last quarter there have been many inquiries on the part of manufacturers, and others in the United States regarding this new article, which is manufactured in Dusseldorf. Samples have been sent to manufacturers in America, who, while expressing doubts as to the article being adapted to general use in the production of woolen goods, admit that it may become an important and useful material in the manufacture of felt cloths, blankets, rugs, carpets, and heavy woolen hosiery. Experiments show that the fiber when mixed with wool cannot be satisfactorily dyed in the piece, for the reason that the vegetable fiber requires in dyeing a very different treatment from that of wool.

There are, however, manufacturers in Europe who express the opinion that this alleged new discovery has many practical characteristics, and that it will in the near future be in general demand, and open new fields of profitable industry for agriculturists and manufacturers. If these predictions prove true there is no country that has as many advantages as the United States for reaping whatever benefits may arise from this so-called new discovery.

**European Laborers.**—It not unfrequently happens, writes Consul Wilson, of Hamburg, that our consulates are in receipt of communications from companies and corporations requesting the consul to take steps in their behalf, such as contracting for laborers experienced in a particular branch of industry; apparently forgetting the impropriety of a consular officer thus interesting himself in their private affairs, especially in countries where the government does not encourage such emigration. To all such, and others who may be in want of skilled labor, I have to suggest that they apply through their agents or brokers to the Castle Garden (New York) depot, or advertise in German-American newspapers having a European circulation.

**Imports from the United States into Bremen.**—Consul Grinnell furnishes the following table of United States exports to Bremen for the years 1879 and 1880, compiled and arranged from figures furnished by the Bremen Government.

BREMEN, May, 1881.

*Table showing the value of the principal articles exported from the United States to Bremen during the years 1879 and 1880.*

Articles.	Value in 1879.	Value in 1880.	Increase.	Decrease.
Cotton.....	\$15,966,866	\$20,463,976	\$4,497,110	.....
Oil.....	8,135,900	8,043,158	.....	\$92,742
Lard.....	2,685,880	3,653,121	967,241	.....
Tobacco.....	3,498,293	3,551,594	53,301	.....
Indian corn.....	1,234,900	2,642,116	1,407,216	.....
Bacon.....	1,264,980	964,920	.....	300,060
Furs.....	639,764	702,864	63,100	.....
Rye.....	498,546	662,342	163,796	.....
Wheat.....	479,961	659,107	179,146	.....
Lumber.....	260,578	231,828	.....	37,750
Clover-seed.....	228,428	220,535	.....	7,893
Butter.....	424,526	155,515	.....	269,011
Fruits, dried and fresh.....	61,527	122,523	60,996	.....
Animals (hogs, &c.).....	15	92,200	92,185	.....
Wine.....	1,321	75,957	74,636	.....
Machines.....	151,237	70,147	.....	81,090
<b>Total.....</b>	<b>35,541,222</b>	<b>42,311,903</b>	<b>7,550,227</b>	<b>788,546</b>

**French Influence in the Orient.**—The Consul at Bangkok, Siam, under date of March 27, 1881, says that—

Two weeks previous to that date the French dispatch-boat *Antelope* arrived here from Saigon, having on board Viscount Foncault, commander of the naval station of Cochin China, and *suite* of naval officers.

The vessel anchored in front of the French consulate, and the commodore and staff were taken in charge by the Siamese authorities and quartered in the ambassador's palace, where they have remained until their departure to-day as the guests of the kingdom.

It has transpired that the object of the mission was to induce Siam to assist in establishing telegraphic communication between Bangkok and Saigon, and the government has promised to do so by building a line to the borders of Cambodia, where it will meet the French line from Saigon. This would put Bangkok in telegraphic communication with the world, and might easily be constructed in a few months at the cost of a few thousand pounds sterling.

Siam, like another warm country of which we read, where the mercury is supposed to range even higher than here, is paved with good intentions, and this promise may or may not be fulfilled. Great Britain may object, and Great Britain has a way of *persuading* the Asiatic mind to follow where it leads.

The French commodore received an ambassador's salute and honors at the King's palace, and was decorated by His Majesty with the insignia of the white elephant. Your representative exchanged calls and courtesies with him, and it has been remarked that he was the only foreign consul who did.

A few days since I presented to His Majesty the King of Siam, Captain Horton, of the Twenty-second Infantry, United States Army.

Very recently I had the pleasure of forwarding as a present to Rear-Admiral Clitz, of the United States Navy, commanding our squadron on this coast, a package of a dozen or more charts of Asiatic waters.

**Still Harping on Trichina.**—It would seem from the following paragraph from a report from Consul Plumacher, of Maracaibo, that the European merchants in Venezuela are interested in spreading the fears of trichinæ in American pork. The dispatch is dated June 19, 1881.

I beg to call attention to the inclosed extract from a newspaper of this city quoting from a Puerto Cabello periodical in regard to trichinæ recently discovered in hams at that port.

As you will observe, the article in question does not inform us whether the hams

were from Europe or the United States, but it is safe to say that an effort will be made by the German merchants of this country to make us responsible.

I have written to the consul at Puerto Cabello for details, in order to be prepared to combat the movement against American hams and bacon, which will most likely be attempted at this port, should the inclosed notice prove to be correct.

[From the Ecar Del Zulia, of Maracaibo, June 18, 1881.]

#### LOOK OUT FOR THE HAMS.

The "Diario Mercantil" of Puerto Cabello, says of the trichinæ:

"A friend of ours has brought us a piece of ham containing millions of these little animals. In view of the publications we have made regarding this matter which occupies so much foreign periodicals, it should not be contemplated with indifference."

This also we believe and recommend.

**Pork Inspection at Hamburg.**—Consul-General Kreismann, of Berlin, in a dispatch dated April 28, 1881, says that—

The following data, showing the results of the inspection for trichinæ at Hamburg, have just been made public in the German Imperial Advertiser, viz:

Of 55,008 American hams examined in 1880, 566 were found to contain trichinæ; of 23,589 shoulders and sides of bacon, 270 were found infected with trichinæ.

In the year 1879, of 79,864 hams, 1,087, and of 22,749 sides and shoulders of bacon, 196 had been found infected with trichinæ. In 1878, of 35,510 hams, in 297, and of 14,003 sides and shoulders of bacon in 85 trichinæ had been discovered.

The percentage during the years mentioned of American pork infected with trichinæ has therefore been as follows, 1878, 0.79; 1879, 1.11; 1880, 1.05 per cent.

As regards European pork, it is stated that in 1880, of 39,843 hams, 14 shoulders and sides of bacon, 9,913 hogs, 146 sausages, and 24 miscellaneous pieces of pork, none were found with trichinæ. In 1879, of 28,710 hams, 739 shoulders and sides of bacon, 16,204 hogs, 15,045 sausages, and 49 miscellaneous pieces of pork, 2 hams and 1 hog were found with trichinæ. While in 1878, of 17,113 hams, 222 shoulders and sides of bacon, and 10,838 hogs, in 3 hams were trichinæ discovered.

For the home articles therefore the percentage of the prevalence of trichinæ is made to appear as follows: 1878, 0.01; 1879, 0.006; 1880, 0.00 per cent.

**American Meats in Switzerland.**—Consul Mason, in a communication to this Department, dated June 13, 1881, transmits the official circular of the Swiss Federal Government, giving to her several cantons the reasons why prohibitory enactments against the importation of American meats are deemed unnecessary and unadvisable. This circular will be published in No. 10 of these reports.

**Damage to Coffee Trees in Guatemala.**—Minister Logan writes the following account to the Department:

On the night of February 10 last, a severe frost occurred, such as has never before been known in Guatemala, and destroyed immense numbers of coffee trees in the districts of San Marcos, Costa Grande, Costa Cuca, Petape, and La Antigua. In the latter, which is one of the finest districts of the republic, the destruction was almost complete. Mr. Barrundia, minister of war and finance, owns a "*finca*" or estate in that region, and of 300,000 coffee trees upon it only about 60,000 remain uninjured. It is thought that the roots of the trees, in all cases, are unharmed, but even in this case three or four years must elapse before they can bear again.

It is proposed to begin the cultivation of the grape in La Antigua, but the chances of success in this direction do not seem very flattering, for, independent of the circumstance of there being very few localities in the republic where the grape could find congenial climatic influences it would fall before the attacks of the abounding forms of insect life. Experience upon a limited scale has demonstrated the certainty of such a result. A more sensible suggestion is that of beginning the cultivation of the cinchona on a large basis, for this tree will undoubtedly flourish in most parts of the country.

I consider the condition of Guatemala exceedingly critical, and it seems to me most unwise for any of our people to invest money here, as many talk of doing.

**Steamships superseding Sailing Vessels.**—Consul Sprague, writing from Gibraltar under date of January 27, 1880, says:

If means had been taken for the safer transportation of petroleum in American steamers, it is probable that the trade carried on between New York and the above port would not have been monopolized by British steamers, as now happens to be the case, as also in the conveyance of almost all merchandise to the United States markets from most parts of the world. The matter has become one of momentous consideration to the United States, and the importance of taking measures to recover our position in the carrying trade of the world is incalculable. The constantly increasing number of foreign steamships, especially those under the British flag, indicates that the business has been and *continues to be profitable*.

**Underground Telegraphs in Germany.**—A very interesting and important report by Consul-General Lee, of Frankfort-on-the-Main, on the practical working and cost of underground telegraphs in Germany, was published in No. 6, pages 572–574, in which a line, on page 574, reads “the expense (1879) of keeping the underground lines in repair has been only 15 marks (\$3.60) per kilometer.” It should have been printed “15–100 marks (15 pfennige or 36 cents) per kilometer,” being considerably less than expense of repair, for same year, of the overground lines, which was (there stated correctly) 10.70 marks (\$2.45) per kilometer, supporting the belief, as Consul Lee adds, “that the underground lines will entirely overcome, in the course of fifty-five years, the disparity against the same in cost of construction.

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**COMMERCIAL RELATIONS OF THE UNITED STATES.**

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23330

**REPORTS**

FROM THE

**CONSULS OF THE UNITED STATES**

ON THE

**COMMERCE, MANUFACTURES, ETC.,**

OF THEIR

**CONSULAR DISTRICTS.**

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No. 10.—August, 1881.

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**ON**  
**COMMERCE, MANUFACTURES, ETC.**

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*AUGUST, 1881.*

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**C O N T I N E N T O F A F R I C A .**

**AMERICAN TRADE WITH LIBERIA.**

*REPORT BY CONSUL-GENERAL SMYTH, OF MONROVIA.*

Herewith find a return of Liberian trade with the United States. I am pleased to inform you that there are each year additions to the farming class of the country from among Liberians, recent emigrants, and a few aboriginal Africans. There is an impression spreading and happily influencing the common people that the hope for bread, for comfort, for respectable manhood is in the soil.

The financial condition of the country is bad, and is destined to grow worse rather than better until public morality shall be vitalized, and until official delinquency can be punished, and is punished, by the courts and by public censure.

The inability of the poor to support themselves as common laborers and as servants to the better class, on account of the irredeemable currency which is used as money, each year sends some to the soil, and as "the uses of adversity are sweet," it may be that this severe school of financial adversity is the means to make the country what nature destined it to be, by cultivation, a rich agricultural region.

The increase of coffee is in like proportion to the quantity reported last year, perhaps a little in excess of last year. Camwood has not appreciably decreased in quantity nor quality. I have been shown some very fine specimens of gum-copal from the Kroo country, between Grand Bassa and Cape Palmas. But the Liberians, as I am advised, have done nothing toward securing and shipping this valuable commodity. From information given by me to one firm, there is reasonable probability that before long Liberian copal will be found in the New York and Liverpool markets.

JNO. H. SMYTH,  
*Consul-General.*

CONSULATE-GENERAL OF THE UNITED STATES,  
*Monrovia, Liberia.*

1 AUG

## RETURN OF LIBERIAN TRADE WITH THE UNITED STATES.

*Statement showing the imports and exports between Liberia and the United States for the year 1880.*

Articles.	Imports.		Exports.	
	Amount.	Value.	Amount.	Value.
Coffee.....pounds.....			251,306	\$26,139 53
Camwood.....tons.....			349	32,220 00
Palm oil.....gallons.....			83,898½	27,982 83
Palm kernels.....bushels.....			105	115 50
Ivory.....pounds.....			400½	379 87
Ginger.....do.....			1,540	53 90
Wine.....gallons.....			75	150 00
African curiosities.....				50 00
Tortoise shell.....				35 00
Bark: American				
Liberia (general cargo).....		\$11,400		
Cardenas (general cargo).....		30,000		
Monrovia (general cargo).....		50,000		
Denerty (general cargo).....		20,000		
Mary Celeste (general cargo).....		25,000		
Total.....		136,400		87,126 63

NOTE.—The cargo of the Liberia alone was entirely disposed of in Monrovia. Five American barks entered and cleared during this fiscal year; average tonnage, 3,777.

## AFRICAN GOLD MINES.

REPORT BY MR. SMYTH, MINISTER RESIDENT AT MONROVIA, LIBERIA.

I beg leave to call attention to the fact that the distinguished English traveler, Commander Cameron, has been sent out to Axim, Ashantee country, West Africa, in the interest of the Effuenta Gold Mines Company, and is at this writing in Axim for the purpose of making examination of and reporting upon this interesting subject. Very recently four rich and valuable veins have been struck, and specimens taken from them have been sent to England.

It may not be uninteresting to know that our country has contributed largely to the discovery and thus far to the development of this first mining enterprise in West Africa.

Mr. Paulus Dakse, a citizen of California, a geologist and miner of high rank, is the manager of the Effuenta Company. I had the pleasure of entertaining that gentleman at this legation one evening in the year 1879. He then informed me that it was his impression from his mining experience in California that Effuenta would prove the richest find yet discovered; and it is now regarded as equal to the St. John del Ray. From accounts already in possession of the English public his prophecy is being realized.

While I do not pretend to speak with accuracy, yet from the geographical relation of the Kong Mountains to the Axim section of West Africa and to Liberia, I am of opinion that these veins extend and ramify through the greater portion of the country sixty or a hundred miles eastward from the coast, and extend from the river Karamanka (here and there) to where the Joliba or Niger circles and enters the Atlantic Ocean.

The proximity of Axim to San Pedoro, the southern limit of Liberia,

is a fact that strengthens my impression of the existence of gold here in Liberia with the fact that washings have been found up the Cavalla River (Liberia).

The importance of the foregoing may be appreciated when you are reminded of the existence of a statute, passed in 1869 by the legislature of Liberia, upon the subject of mining, in which splendid facilities are offered to foreigners to engage in the development of this resource of Liberia. In this connection I very respectfully direct your attention to my No. 52, November 15, 1879, diplomatic series, in which the text of the act is set out.

JOHN H. SMYTH,  
*Minister Resident.*

UNITED STATES LEGATION,  
*Monrovia, May 26, 1881.*

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## CONTINENT OF AMERICA.

### AMERICAN VS. CANADIAN MEDICAL LAWS.

*REPORT BY COMMERCIAL AGENT CARROLL, OF PORT STANLEY AND ST. THOMAS, ONTARIO.*

I have the honor to submit for the information of the department a few remarks upon a subject in which I think a large element in the United States will be interested, particularly the medical profession thereof, viz, the "Ontario medical act," the existence of which is comparatively unknown even to the medical men of the United States.

This act has been in operation for some years. Under it no medical man holding a diploma from an American college can practice medicine in Ontario. He cannot even cross the line in order to consult with a Canadian physician, should the latter or his patient make the request, without subjecting himself to the conditions of the law, which is a fine of not less than \$25 nor more than \$100 for each offense.

The act incorporated the profession of Ontario under the name of the "College of Physicians and Surgeons of Ontario" and directed the formation of a "Medical Council," to be composed of one member from each of the schools of medicine existing at the time of enactment in the Province and one from such as might thereafter be authorized to establish a medical faculty, together with twelve members to be elected from the registered members of the "College of Physicians and Surgeons."

The council has authority—

First. To appoint examiners for the admission of students to matriculation.

Second. To make by-laws and regulations for the admission and enrollment thereof.

Third. Of determining the conditions upon which it will receive evidence of matriculation and certificates of colleges and other institutions not in the Province of Ontario.

Fourth. To determine a curriculum to be pursued in all the schools of medicine in Ontario.

Fifth. To exempt from the provisions of the act persons registered in the Medical Register of Great Britain, or those otherwise authorized

to practice medicine in the United Kingdom of Great Britain and Ireland.

Sixth. To exempt any institution in a foreign country it may deem eligible.

The law provides for a secretary to the council, who shall keep a book in which shall be entered the names of all entitled to register, and none but those registered can practice medicine.

While the council has all this authority, and more, it has not seen fit thus far to except a single institution or a single member of the profession in the United States. This, too, notwithstanding the text-books used in the schools of Ontario are to a great extent the product of American authors.

Under the "Ontario medical act," the authors of the very books used in the schools of Ontario would have to attend one year at some college in the Province, and study their own books before they could register or practice, that is, provided they were graduates of a school which the council considered worthy of recognition, but if not, then four years.

There have been cases of arrest of eminent men for a violation of this law while in consultation or attending patients in Ontario. It is presumed these gentlemen did not know of the existence of such a law, else they would not have run any risks.

The "Ontario medical act" is unfair and unjust to American graduates, and is as much a reflection on the United States as a whole as it is on the medical men and medical institutions thereof. For Canadians to claim that they have better talent, better educated men in the profession, or better schools, as a rule, is absurd. That they have not is so palpable as to admit of no argument. The names of the medical men of the two countries need only be compared to upset any such assumption. There is no restriction on the medical men of Canada, nor upon those of any other country entering the United States; they can go whence or where they please, and by complying with whatever local license law there may be can practice their profession. Some of the States have medical laws, but they are not such as to exclude any gentleman who has a diploma or other evidence that he is entitled to practice.

Ontario may or may not have enacted this law for the benefit of American physicians, but be that as it may, it looks very much as if it did. The object of the law appears to be to keep out American competition and to compel young Canadians to attend colleges at home. If no such law obtained in Ontario, the great majority of those desirous of studying medicine would attend American colleges, the facilities requisite to the study being much greater in the schools of the United States than in Canada. This is admitted by men high in the profession whom I have met in Canada.

The law is quite unpopular among the laity, many of whom prefer American physicians, and before its passage employed them. It affects a great many living on the borders in the States of New York, Pennsylvania, Michigan, &c., besides others in the interior who, for some reason or other, might desire to make Canada their temporary or permanent home.

Again, as I said before, it is a reflection, impliedly at least, on the institutions of learning as a whole in the United States. It signifies that, "We (Canadians) are superior to the people of the United States. Our institutions of learning are better than theirs, and no matter what their attainments, we will subject them to a training in our schools before we shall accept them on equal footing."

Absurd as it is, this is the meaning of the act. But it is not their belief.

The truth is they fear our competition, and desire to keep their young men at home to support home institutions. They affect to look down on everything American, and when I say "they" I refer to those in high places. All officials, however, have not this affectation. The people, so far as I have been able to determine, during a sojourn of fifteen or sixteen months, are all favorably disposed toward the United States, and look upon it as the greatest government in the world. They are opposed to the "Ontario medical act," or anything that proscribes or reflects on Americans.

It might be considered a small matter for the United States to undertake to rectify the injustice done to Americans and American institutions of learning by the "Ontario medical act," but nevertheless I respectfully submit that it would be a step in the right direction if the Congress of the United States were to enact a medical law that would keep out Canadians until they had so modified their act as to admit Americans holding diplomas from reputable colleges on the same footing with themselves. There is no reason why, it seems to me, that they should be allowed to cross the line and prescribe or settle without question, when we are deprived of that privilege in Canada.

The United States, great, broad, and liberal in everything and toward everybody, foreign as well as native, should not forget in her liberality, it appears to me, that a law exists at her very doors which affects many of her citizens and reflects on her institutions of learning.

PHILIP CARROLL,  
*Commercial Agent.*

COMMERCIAL AGENCY OF THE UNITED STATES,  
*Port Stanley and St. Thomas, Canada, May 6, 1881.*

## RAILROADS, MINING, AND COLONIZATION IN SONORA.

*REPORT BY CONSUL WILLARD, OF GUAYMAS.*

I have the honor to report that perfect tranquillity prevails throughout the Guaymas consular district. On the Sonora Railroad track-laying was resumed on the 29th of last month, with 30,000 ties on hand. As stated in my last dispatch, the road was 45 miles from Hermosillo at the time of the stoppage. An average of 3,000 feet of track is laid per day, the heat, which had been expected to interfere with the work, having proved less oppressive than was anticipated. The work forces consist of mixed gangs of Mexicans, Yagui Indians, and foreigners of different nations. Sufficient steel rails are on hand to reach within seven miles of Hermosillo, which, it is hoped, will be reached by September. The general health on the road is excellent. Only three accidents have occurred on the railway during the past six months, one of which ended fatally. The injured persons were natives.

The interest in mines still continues; many people from the United States are in Sonora looking for investments. A number of mines have been denounced during the last three months, but no important sales of mines are reported. The law placing a duty on machinery and lumber lately passed by the Mexican Congress, which goes into effect on the 1st of November, causes great dissatisfaction among the mining class.

The two engineers connected with the "Castro and Brannan" colonization scheme, under the Mexican grant of February 26 last, for lands between the Yagui and Mayo Rivers, in this consular district, have left for the city of Mexico. The federal judge of Sonora refused to grant them permission to commence surveys of the land, and consequently no work of any kind has been attempted. Mr. Sam. Brannan has reported the action of the judge to the Mexican Government. The State government of Sonora is apparently not in sympathy with the enterprise. Mr. Brannan will leave here in a few days for San Francisco, where he expects to remain pending the action of the Mexican Government.

A. WILLARD,  
*Consul.*

UNITED STATES CONSULATE,  
*Guaymas, July 12, 1881.*

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### BALATA GUM AND SILK GRASS OF HONDURAS.

*REPORT BY CONSUL BURCHARD, OF RUATAN AND TRUXILLO.*

By the steamship E. B. Ward, jr., which leaves this port to-day for New Orleans, I send to the Department of State a box containing specimens of balata, or tuno gum, and silk grass, both of which are beginning to excite considerable interest and attention in this country, and promise to become important articles of trade.

The balata gum, or tuno, as it is called in this country, is prepared from the milk of a tree which closely resembles that which produces India rubber, and it seems to be an intermediary between caoutchouc and gutta-percha. Large quantities of the gum have recently been imported into England and Germany from the west coast of Africa, and is being successfully employed in the manufacture of submarine cables, and for other purposes. Specimens of the gum have at different times been sent from this country to the United States, but as the process of preparing the milk was not then known, the specimens were black and sticky, and if any experiments were made with them by manufacturers, they were not sufficiently satisfactory to create a demand.

The specimens contained in the box addressed to the Department were prepared by a simple process which leaves the gum white, dry, and hard, and will commend itself to the attention of manufacturers who employ either gutta-percha or India rubber, combining as it does the elements of both.

The supply of India rubber from this part of tropical America is constantly decreasing, as the natives, with a want of economy peculiar to themselves, have adopted the practice of felling the trees so as to obtain all the milk at once, instead of subjecting them to a series of bleedings and allowing them time to recover after each operation.

The trees which produce the balata, or tuno gum, are very abundant on the Atlantic slope of all the Central American republics as well as in other tropical regions. Large quantities can be supplied at a cost considerably below that of either rubber or gutta-percha, and as repeated experiments in Europe have proven that it can be employed as a substitute for them, either alone or in combination, I see no reason why it should not receive the prompt and careful investigation of American

manufacturers. I shall be happy to furnish further information on the subject, and to contribute as far as I am able towards its introduction into the United States.

Mr. Floyd B. Wilson, of New York, left this port on the 22d of last month for the United States, carrying with him a very generous and valuable concession, which, with my aid, he obtained from the Government of Honduras, to control and utilize a beautiful fiber known as *juta*, or silk grass, which abounds in this country. The *juta* is used here by the natives for the manufacture of cordage, shoe-thread, fishing lines, nets, hammocks, &c. It is very strong and durable, and is said to be superior to hemp or flax. It contains over 30 per cent. of the finest silk, which can be employed for the same purposes as that produced by the caterpillar. Mr. Wilson represents a company in New York which will soon send out machinery of a late invention and establish work on a large scale to clean and prepare this elegant fiber for market. The *juta* grows wild and covers immense tracts of land near the margins of the rivers and lagoons of Honduras. The plant is perennial and very easily cultivated.

WM. C. BURCHARD,  
Consul.

UNITED STATES CONSULATE,  
*Ruatan, July 24, 1881.*

## THE SUGAR PRODUCT OF GUADELOUPE.

REPORT BY CONSUL BARTLETT.

Having received a letter from a gentleman in the United States, who claims to be an ex-special agent of the United States Treasury Department, and an acknowledged expert in and investigator of matters relating to customs business and the sugar question, requesting me to furnish certain informations concerning sugar, in order to efficiently pursue his labors before Congress in behalf of consumers of sugar, sugar-producing industries, and revenue interests in the United States, and also to encourage and facilitate American commerce with all sugar-producing countries, I beg to submit the following statistics to the Department in answer to his interrogatories:

There were, in 1880, 23,152 hectares, or 57,280 acres, of land cultivated in sugar at Guadeloupe.

The aggregate product of sugar for the year 1880 was 56,302,123 kilograms.

The average yield of sugar per hectare of newly-planted ground is about 5,000 kilos.; for the second year, or first shoots, the yield is about 3,000 kilos. per hectare. The third year, or second sprouts, is about 2,300 kilos. per hectare. After the third year the cane should be replanted.

The cost of producing 100 kilos. of sugar is from 28 to 35 francs.

The price of muscovado sugar for the year 1879 was from 36 to 40 francs, and for the year 1880 from 40 to 46 francs the 100 kilos. Usine or manufactured sugar, on the centrifugal process, or that advanced above No. 10 Dutch standard, was about 60 to 65 francs the 100 kilos. for the years 1879 and 1880.

The aggregate value of the crop of sugar for the year 1879 was 27,400,000 francs, and for the year 1880 I think it will be about the same.

Statement of sugars exported from Guadeloupe.

Countries.	Years.	Quantities.	Value.
		Kilos.	
To the United States .....	1879	13, 432, 429	\$951, 753 15
Do .....	1880	11, 314, 581	1, 019, 987 48
To France .....	1879	30, 464, 697	3, 151, 302 00
Do .....	1880	25, 689, 742	.....
To England .....	1879	577, 945	48, 427 00
To Italy .....	1879	2, 902, 000	280, 043 00
To Gibraltar .....	1879	1, 238, 986	112, 826 00
To Cadiz .....	1879	653, 719	63, 083 00
To the neighboring islands .....	1879	42, 506	4, 163 00

Statement in kilograms of all sugars exported from Guadeloupe, together with their different grades, from the year 1870 to the year 1879 inclusive.

Years.	Muscovado.	Usine.	Concrete.	Total.
	Kilos.	Kilos.	Kilos.	Kilos.
1870 .....	12, 301, 116	21, 915, 352	279, 359	34, 495, 827
1871 .....	12, 684, 698	26, 749, 250	364, 215	38, 798, 163
1872 .....	10, 861, 765	20, 645, 791	923, 717	32, 433, 273
1873 .....	10, 710, 698	25, 133, 921	1, 565, 000	37, 409, 619
1874 .....	10, 975, 628	23, 878, 824	1, 172, 384	36, 026, 836
1875 .....	12, 874, 395	35, 657, 480	986, 148	49, 018, 024
1876 .....	9, 971, 511	25, 498, 192	795, 477	36, 265, 180
1877 .....	11, 792, 988	31, 421, 754	924, 990	44, 139, 732
1878 .....	12, 324, 630	35, 793, 496	880, 430	48, 998, 556
1879 .....	10, 968, 054	25, 555, 086	1, 111, 820	48, 746, 780
1880 .....	10, 231, 830	31, 090, 277	733, 737	42, 055, 844

There is no melada sold in this market; it is all advanced beyond its normal condition of melada, viz, muscovado sugar by draining and leaching, usine sugar by the centrifugal process, and concrete sugar by usine de concrétor.

The grades of sugar shipped to the United States are supposed to be below No. 10 Dutch standard.

The polariscope test is never used either in buying or selling sugar in this market.

The production of cane sugar, I should give as my opinion, is apparently stationary in this island.

I do not think it would be of any advantage for the United States to reduce the duties on sugar, for the producing countries will ship their sugar to such markets wherever they can obtain the best prices, and the United States is the best market for raw sugar at present, and with most of the sugar-producing countries the balance of trade is against us, that is, we buy more sugar of them than they buy of our products. I will take Guadeloupe, for example, which is a French colony, connected by a semi-monthly well subsidized line of French steamers, and having many of the business houses here in connection with houses in France. Its inhabitants are also connected politically and socially in France, therefore the overplus of money we pay them for sugar they take to buy goods in France and in England. England, who bought in 1879 of this island's products the small sum of \$18,427, sold to this island in the same year about \$500,000 in merchandise, besides about 36,000 tons of coal from Newcastle. All this was forwarded via France on French steamers.

In my opinion the best means to extend trade between the sugar-producing countries and the United States would be by steam communication. Packets running regularly, patronized by the United States Government, built in American ship yards, manned by American offi-

cers, and sailing under the American flag, and no other, should be patronized by the United States or its government.

In the collection of duties I believe it might be simplified so that shippers of raw sugar would understand it better; that is, by establishing three grades; the first grade comprising raw sugar, or that which has not gone through any process of refining; the second grade that has gone through a partial process of refining, and the third grade refined sugar. There might be a specific and ad valorem duty added, or an ad valorem duty only, and the polariscope test might be used in connection with the raw sugars.

I give it as my reason for the specific and ad valorem duty, or ad valorem duty only, that the purchasers of sugars in the sugar-producing countries would then know what the duty on sugar would be; but as it now stands they are not well enough versed in the different shades and colors of sugar upon which the duties are assessed, and therefore buy the sugar on an uncertainty as to what the duties may be with most of the sugar-producing countries. At the present day there is telegraphic communication, and the price of sugar in the United States is known daily. They would then know that with the specific and ad valorem duty they would have to pay so much per pound, and such a percentage on what it costs. Therefore they could ascertain the price they could afford to pay with more exactness, and, furthermore, it would do away with the practice of importing into the United States partially refined or concrete sugars, that is, sugar having gone through the centrifugal or concrete processes as raw sugars, with the dirt, scums of the boilers, and molasses all left intermingled with the sugar to save duties, when in reality such sugars have gone through a partial process of refining, and test very high. When it is not raw sugar it should come under the second class, and pay a higher rate of duty as partially refined sugar.

CHARLES BARTLETT,  
Consul.

UNITED STATES CONSULATE,  
*Point-à-Petre, Guadeloupe, June 6, 1881.*

## THE CONTINENTAL EXPOSITION AT BUENOS AYRES.

REPORT BY CONSUL BAKER.

I have the honor to inform you that the Continental Exposition of Buenos Ayres, which, owing to political troubles, was postponed last year, is now definitely fixed to take place on the 15th of February, 1882. I inclose the official notification of this fact, with a translation of the same, for the benefit of those who desire to contribute to the exhibition. The use of the plaza "Once de Setiembre," the largest and most eligible in the city, has been conceded by the national government for the purpose.

E. L. BAKER,  
Consul.

UNITED STATES CONSULATE,  
*Buenos Ayres, June 10, 1881.*

### OFFICIAL NOTIFICATION.

BUENOS AYRES, *June, 1881.*

*To the Consul of the United States of North America:*

SIR: The subscriber, in the name of the executive committee of the Industrial Club of this city, has the honor to address you in order to inform you that all the difficulties

having happily been removed which prevented until now the realization of the Continental Exposition, it will take place on the 15th of next February in the plaza "Once de Setiembre," which the national government has had the goodness to concede to us for this purpose, as appears by the decree, a copy of which accompanies this.

Wherefore, the association over which I have the honor to preside, requests that you will please notify your government and such of your countrymen as may have an interest in the exposition, of the time, which has been definitely and irrevocably fixed for the opening of the affair.

In regard to the plan, regulations, and other details concerning the exposition, nothing has in any respect been changed, and it will take place on the same terms and conditions on which it was primarily projected.

The undersigned trusts that on your part you will in every way possible exert yourself for the success of the undertaking, extending to you beforehand our acknowledgments for the same, and the considerations with which I am, &c.,

ENRIQUE URIEN.

VALENTIN M. CURUCHET,  
*Secretary.*

#### DESIGNATION OF SQUARES FOR THE EXPOSITION.

DEPARTMENT OF FOREIGN RELATIONS,  
*Buenos Ayres, May 17, 1881.*

The government, desiring to co-operate for the success of the exposition of the Industrial Club, and after having heard the president of the municipality on the subject, there is conceded to the Industrial Club the use of plaza "Once de Setiembre," according to the proposition made by the said president of the municipality, to whom this resolution will be communicated, hereby authorizing him to take all necessary measures in the premises.

ROCA.

### AMERICAN TRADE WITH THE PROVINCE AND PORT OF RIO GRANDE DO SUL, BRAZIL.

REPORT BY VICE-CONSUL PRELLER.

#### IMPORTS FROM THE UNITED STATES.

The principal article received by this province is flour, the principal Richmond brands having been special favorites for many years past and still hold the supremacy. From Trieste a few cargoes of Hungarian flour are imported annually, and of late considerable supplies have been drawn from the river Plate and west coast. Rosin is also a staple import, and 100 to 200 barrels come with every assorted cargo. Kerosene oil, although somewhat affected by the introduction of gas into the three principal towns, is still an article of large consumption, the favorite marks being Devoes', brilliant and photolight and Bostwick's daylight, in tins of five gallons, with screw-cap and nozzle.

Lard being produced in large quantities in the province itself cannot, as a rule, be imported to compete with the home manufacture. Occasionally, however, prices advance, owing to extraordinary causes, such as a drought or extra demand for export and supplies of Jenkins's make, in kegs, obtained from Rio de Janeiro and direct.

Lumber, although timber of numerous qualities is abundant in the province, also finds ready sale both for one-inch white-pine boards, as well as pitch-pine planks and deals for building purposes. Turpentine, in five-gallon tins, is also imported from the United States, but consumption is limited. Chairs were formerly imported in large quantities, but the Port Alegre "Fabrica" turns out both wooden and cane-seat in large quantities, and from the United States only a few new styles can be imported, and the duties on cane-seat preclude any chance of favorable sale. Corn brooms, as already noticed, are made now on the spot, and though not equal in finish to those manufactured in the

United States, still are strong competitors; none but painted handles and wire-fastened sell in this market.

The high duties levied by the government on canned provisions are almost prohibitory, and salmon, lobsters, oysters, and condensed milk, which used to enter largely into every assortment imported, are no longer included to any extent. On the other hand, there are always quantities smuggled into the place, so that the policy of the government, without even the merit of being protective, as no such goods are put up here, is actually detrimental to the revenue.

Duryea's maisena, in twenty-pound boxes and one-pound packets, has become a staple, and may be seen in every grocery and drug store. Patent medicine may also be mentioned, and some perfumery of Lanman and Kemp, Ayre's and Radway's preparations, all of which, by dint of continual and extensive advertising and their own merits, are increasing every year in sale. Agricultural implements, such as Eagle and side-hill plows, and cornshellers, and canal borers, are also every day coming more into use. As regards hardware, we are informed by Mr. Francisco Campello that although he is most anxious to introduce the American make, it comes out too dear, and moreover the castings are too heavy. Collins's broad-axes are much liked, but spurious imitations are being imported from Germany. Box smoothing-irons, also of English and German manufacture, now come in quantities, though very inferior in finish to the genuine American. Sewing-machines, which used to be imported exclusively from the United States, come in the greater part from Germany, and with various well-known American names on them. Manufactured cotton goods are much appreciated when genuine, but consumption is limited. Spurious British and German imitations are numerous, with labels or marks the exact copies of the home factories, and do much harm; besides, the price of the genuine is high, and a large proportion of consumers look more to price than quality.

In concluding my remarks respecting articles imported from the United States, I would mention the desirability of the utmost equity in prices on the part of sellers, it having been observed to me that importers here are under a disadvantage, owing to the small quantities of certain articles ordered. As these, in many instances, are only trials and commencements, in the hope of increased business, it is only fair that purchasers for small markets should be able to compete with those of larger and neighboring places.

The following articles were imported during the year ending December 31, 1880: Ale and porter, 6,736 cases and barrels; almonds, 215 barrels and 19 bags; butter, 1,081 barrels and 1,032 cases; candles, 3,841 cases; cheese, 649 cases; cognac, 2,665 cases; codfish, 1,968 cases and 1,500 tubs; coal, 14,998 tons; figs, 364 boxes; gin, 4,536 boxes and 4,386 demijohns. Flour: American, 49,275 barrels and 10,806 bags; Hungarian, 4,706 barrels; River Plate and West Coast, 33,247 bags. Kerosene, 8,750 cases; linseed oil, 224 barrels and 90 kegs; liqueurs, 1,400 cases; lumber, 225,500 feet; lard, 2,000 barrels, 48 pails, and 12 cases; macaroni, 12,189 cases; nuts, 291 packages. Oil: Portuguese, 397 barrels and 445 boxes; Mediterranean, 2,970 cases; olive, 615 cases and 255 kegs. Prunes, 338 cases; raisins, 12,000 cases; rice, 28,223 bags; rosin, 2,223 barrels; shot, 320 kegs; soda ash and caustic soda, 868 barrels; salt, 461,950 bushels; sardines, 665 cases; tar, 472 barrels; tin plates, 832 boxes; tea, 467 cases; turpentine, 635 cases; white lead, 652 kegs; window glass, 2,089 cases. Wines: Portuguese and Spanish, 6,062 pipes and 8,071 boxes; French, 954 hogsheads and 10,431 boxes; champagne, 980 cases. Vinegar, 24 pipes and 1,060 demijohns.

Of other articles, such as dry goods, earthenware, and hardware, I have been unable to get at the quantities imported.

Besides the above, there have been received coastwise 4,992 bags of Brazilian rice, 44,240 bags and 40,833 barrels of sugar, 23,131 bags of coffee, 1,889 pipes of white rum, 755 barrels of molasses, 241 pipes vinegar, besides a large quantity of tobacco and lime, the exact quantities of which I have been unable to ascertain.

EXPORTS.

The United States is the largest customer of this province for dry cattle-hides, having taken over 2,000,000 during the past six years, or more than seven-tenths of the total quantity shipped; and here, again, the want of easy transport from the interior is exemplified, as, were the distant parts of the province in ready access with the principal towns, no doubt can be entertained that many hides which are now lost, or forwarded to the adjoining republic, would find their way to this market. The hides which are taken from the cattle in the Saladeros, and there salted, find less favor in the United States, and during the past six years only 50,300 were shipped thither, against 2,685,000 to Europe.

Of horsehair, the bulk finds its way to the United States, as well as glue stock, in the shape of hide trimmings, pizzles, and nerves, which, after being poisoned, are packed in bales.

The production of wools seems rather to decrease than otherwise, and little or no attention is paid by the farmers to the breed. The consequence is that little merino or even mestizo comes to market, and the local factory, already noticed, is a formidable competitor for the coarse creole or coarse wools, which last description were exported formerly exclusively to the United States, and used for carpet purposes.

The jerked beef and fat-stuffs find ample outlets in the northern parts of the empire. The bone-ash from this province, being superior to that made in the River Plate and dearer in cost, is sent principally to England, and used chiefly in the potteries. Such parcels as have gone forward to the United States have lost money. Shin-bones and cattle-horns are generally much sought after for dunnage, the latter especially, but the salted-hide purchaser has right to the corresponding horns; hence the small shipments to the United States.

Summary of exports to the United States during the quarters ending March 31, 1881 and 1880.

Articles.	1881.		1880.	
	Quantity.	Value.	Quantity.	Value.
Dry ox and cow hides.....number..	108,759	\$349,509	145,971	\$491,196
Hair.....kilograms..	182,259	76,447	78,000	37,167
Wool.....do.....	130,102	40,395	107,049	31,260
Shin-bones.....number..	58,890	504	.....	.....
Cattle-horns.....do.....	17,263	1,084	23,583	1,417
Sundries.....	.....	.....	.....	4,176
Total.....	.....	467,939	.....	565,216

WM. A. PRELLER,  
Vice-Consul.

UNITED STATES CONSULATE,  
Rio Grande do Sul, April, 1881.

## THE PROVINCE AND PORT OF RIO GRANDE DO SUL.

REPORT BY VICE-CONSUL PRELLER.

In compliance with the Department Circular of July 1, 1880, I beg to subjoin some remarks of general information respecting the province and port of Rio Grande do Sul, more particularly as connected with the United States, in a commercial point of view.\*

Although the field is not one of much scope at present, still there can be no doubt that there is a good future ahead, and that the produce and manufactures of the United States will find in consequence an enlarged outlet seems equally certain. The want of means of locomotion throughout the province has doubtless been the principal drawback to its advancement; for, endowed as it is with a temperate climate, fertile soil, and remarkable mineral resources, an increase of population, combined with facilities of transport, must infallibly result in a general improvement and advancement.

The railways already in course of construction or about to be commenced will do much to promote this, and with the development of agricultural industries so much needed in the south of the province, and so likely to be established in the course of time, a continual demand for imports of every kind, and more especially for tools and agricultural implements, is to be looked for, in the supply of which the exporters and manufacturers of the United States should largely participate.

The only railway in actual operation is a short line, starting from Porto Alegre, the capital of the province, and connecting thereto the neighboring towns of Sao Leopoldo and New Hamburg, which form the center of the German colonies. These last are large and constantly increasing producers of cereals of every description, as also of mandioca, tobacco, &c., furnishing a fair goods traffic to the line, which is about paying its way, although much of the transport is done by the river craft, under steam and canvas. But a large and highly important line is in course of construction by the government, starting from the town of Rio Pardo, 27½ leagues from, and with good river communication to, Porto Alegre, which is to terminate at Uruguazanna, one of the principal frontier towns, and which, when completed, will open up the northern part of the province; the total extension being no less than 146½ leagues.

A third, and equally if not more important, line is contracted for by a French company, and bids fair to be commenced shortly, which, starting from the port of Rio Grande itself, after passing through Pelotas, the Candiota coal-field, and the important town of Bage, will form a junction with the above-named northern line at Cacepuy, and eventually connect this town (Rio Grande) with that of Uruguazanna, a distance of 128½ leagues.

How long a time may elapse before these lines may be completed is hard to say, as everything in Brazil goes ahead slowly. They have been long talked of, and must sooner or later become realities; the sooner the better for the place, as trade has been languishing for some years past, and a stimulus is badly wanted.

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\*That portion of Vice-Consul Preller's report which relates to the trade of Rio Grande do Sul with the United States has been detached and published separately immediately preceding this report.

## STEAM COMMUNICATION.

Three steamers of Lamport & Holt's Line (screw propeller) and two of the National Line (paddle) arrive regularly from Rio de Janeiro and proceed afterwards to Montevideo, calling again on their return voyage, and during the summer months there are additional steamers put on as required.

Both lines bring considerable cargo in transit from Europe, and the former from the United States; but the cargo taken from here is for the most part destined for Rio de Janeiro only. The steamers are all under the Brazilian flag, those of the former line being officered by foreigners, chiefly English. Another screw steamer, under the Argentine flag, runs regularly between this point and Montevideo, and being of very light draft proceeds from here to Pelotas and Porto Alegre.

There is daily communication between this town and that of Pelotas; regular weekly trips are also made to Jaguarao, and a steamer leaves twice a month for Santa Victoria, calling at the last-named town.

For Porto Alegre a steamer is dispatched the day subsequent to the arrival of those from Rio de Janeiro, so as a rule we have eight to ten departures a month for the capital of the province.

From Porto Alegre there are small steamers running up the rivers to Sao Leopoldo, Rio Pardo, Sao Jeronimo, and Cachocira. As a rule these steamers are good and well managed; both freights and fares are, however, high, and accommodations indifferent.

## TELEGRAPHS.

Through the Western and Brazilian submarine cable Rio Grande can communicate with all the world. The government overland lines also receive telegrams for Europe, the United States, the empire as far north as Natal and the river Plate. Our province in this respect is well served, most of the towns being now connected, and the charges are moderate.

## THE PRESS.

There are no less than five daily papers published in this town, six in Porto Alegre, four in Pelotas, two in Jaguarao; and in fact almost every small town in the interior supports its own paper, published twice a week, or oftener. Most of these papers serve the interests of one or other of the political parties; some few are, however, neutral. The subscription is from \$8 to \$10 yearly.

## BANKS.

The only established bank in this town is the New London and Brazilian Bank, limited, a branch of the London Bank of the same name. There is, however, an agency for the transaction of exchange business of the English Bank of Rio de Janeiro and of the Bank of Brazil. In Pelotas there is no bank, and in Porto Alegre the "Botuco da Provincia" is the only one. There is undoubtedly an opening for a bank in this town, having resources for monetary as well as exchange operations.

## INSURANCE COMPANIES.

There are three local companies in this town, one in Porto Alegre, and one in Pelotas; besides the Liverpool, London and Globe, Northern, and London and Lancashire, have all agencies, and do a considerable fire-insurance business.

## LOCAL IMPROVEMENTS.

During the past ten years these have been considerable. The most notable in this city are the building of the new custom-house, a large and handsome edifice, with accommodation for a vast amount of merchandise; the construction of a stone wharf along the water frontage of the greater part of the town; the deepening of the channel leading from the bar to the custom-house to an average of eleven feet; and the laying out of the park in the municipal square.

In Pelotas and Porto Alegre tramways have been laid down in many of the streets, and are in daily operation; both of the said towns showing also several new buildings of an attractive exterior. I should not omit to mention that the three towns are lighted with gas and well supplied with excellent water.

The Pelotas bar at the mouth of the river São Gonçalo has been excavated, and admits of vessels drawing  $9\frac{1}{2}$  to 10 feet under ordinary circumstances, and more at high tides, but the general opinion seems to be that continual dredging will be necessary to keep it at these depths.

The shoal at the Cetia, half way between the bar and the entrance to the river São Gonçalo, is now being dredged, and will shortly present the same water as the bar of the said river.

## BAR OF RIO GRANDE.

After a residence of more than twenty years in this town, and having noticed continually the exaggerated statements respecting the bar, and the indiscriminate manner in which almost all disasters to shipping seem to be attributed to it, I venture to call the attention of the Department to a statement I have compiled from the records of Messrs. Lefebore & Co., Lloyd's agents here, showing the various wrecks, &c., reported by them since January, 1875, and from which it will be seen that out of forty-seven casualties only fifteen took place at the bar (of which ten became total losses). The remaining thirty-two occurred on the coast or at sea, at various distances from the bar, which had no influence on the casualties reported. The pilot service at the bar is well and efficiently conducted, and there are three, sometimes four, steam-tugs waiting for vessels as required. Many masters of vessels have remarked to me that if there is room for complaint or dissatisfaction, it is rather on account of excess of prudence than over-venturesomeness, and that there is generally more water on the bar than indicated by the signals hoisted on the tower. Still, it is convenient that vessels should never be loaded to a draft exceeding 11 to  $11\frac{1}{2}$  feet maximum, in order to avoid detention outside.

Perhaps the greatest drawback to this port for shipping, and especially to vessels under the flag of the United States, which cannot be sailed as cheaply as those of other nations, and to which time is of the first importance, is the long detention, as vessels are rarely discharged under fifteen days, and if chartered here for the return, thirty days are always stipulated for loading.

Return freights have also been for several years wretchedly low and unremunerative, say one fourth to one-half cent per pound for dry hides, or bales of wool or hair, so that a vessel making \$3,500 and upwards out has to return with \$700 to \$1,500. The consequence is that as a general rule the carrying trade is in the hands of foreigners, chiefly Dutch, Germans, and Scandinavians; American vessels leaving in ballast, or with nominal freights for the northern ports of Brazil or West Indies.

*List of maritime disasters in the neighborhood of the port of Rio Grande, from January 1, 1875, to March 31, 1881.*

Date.	Nation.	Rig.	Vessel.	Remarks.
1875.				
Feb. 2	Portuguese	Bark	Minerva	Lost on the bar.
Apr. 25	British	Schooner	Ada	Two miles north of the bar.
May 30	Dutch	Brigantine	Thorbecke	Three miles north of the bar, outward bound.
June 2	do	do	Nida Catharina	Burned in the harbor.
Oct. 16	German	do	Venedy	Struck while going out in 12 feet and put back.
1876.				
Jan. 30	Brazilian	do	Acaso	Lost on the bar, sailing out.
Sept. 30	American	do	B. F. Farnham	Put back leaky.
Nov. 13	Danish	Schooner	Ur	Lost 180 miles north of the bar.
Dec. 23	Portuguese	do	Marquez de Pombal	Lost on the bar.
1877.				
Apr. 1	do	do	Marcial	Lost in the Lake Petos.
June 2	Brazilian	Brigantine	Moriteiro 1	Lost 75 miles north of bar.
Nov. 19	Portuguese	Schooner	Uniso	Lost 90 miles north of bar.
1878.				
Feb. 14	Danish	Brigantine	Maya	Struck on bar, returned and repaired.
June 7	Portuguese	do	Tentativa Feliz	Lost on the bar.
July 9	British	Ship	City of Cromarty	Lost 48 miles south of bar.
Aug. 4	Brazilian	Brigantine	Lynce	Lost 60 miles north of bar.
Oct. 20	British	do	Creole	Touched coming in, and grounded going out, foundered at sea on January 18.
Oct. 19	Dutch	do	Fiducia	Abandoned at sea.
Feb. 13	do	Brig	Johanna Meyer	Lost 10 miles to the north of the bar.
Mar. 3	German	Brigantine	Bertha Neya	Lost on the bar.
Apr. 9	do	Schooner	Johann	Struck on the bar, but got off and were subsequently condemned.
Apr. 16	Norwegian	do	Howen	
1879.				
May 5	British	do	Portsoy	Grounded in a fog; got off safely.
June 30	Dutch	Brigantine	Harmonie	Was lost on the bar.
July 3	German	do	Henriette	Was lost on the bar.
July 3	British	do	Carle Annie	Lost in collision, 40 miles of bar.
Aug. 9	American	Schooner	Gersh B. Anher	Broke her mooring inside the bar.
Aug. 12	Dutch	do	Maria Beerta	Went ashore 300 miles north of bar.
Aug. 14	Italian	Brig	Federica	Picked up 96 miles north of bar.
Aug. 21	Brazilian	Schooner	Graca	Picked up 169 miles north of bar.
Aug. 24	Sweden	Brig	Oscar	Went ashore 820 miles north of bar.
Sept. 12	Danish	Brigantine	Cito	Struck on bar, got in, and was condemned.
Nov. 1	German	Bark	Johann Holzerland	Wrecked 40 miles south of bar.
Nov. 18	do	Three masted schooner.	Johanne	Went ashore 25 miles north of bar.
1880.				
Feb. 11	Norwegian	Brigantine	Lagos	Went ashore 70 miles north of bar.
Feb. 19	Argentine	Steamer	Montevideo	Struck and lost her propeller.
Mar. 20	British	Bark	Mystic Tye	Attempted to cross in 15 feet without call.
May 15	Danish	Brigantine	Mette	Abandoned at sea, subsequently was towed to Rio.
May 20	Dutch	Schooner	Emma	Wrecked 20 miles north of bar.
May 20	Italian	Bark	Coragio	Foundered outside; crew brought in.
June 16	British	Schooner	Dazzler	Abandoned 80 miles north of bar.
July 23	Dutch	do	Candati	Wrecked 150 miles north of bar.
Sept. 29	British	do	Florence	Lost on bar; attempted to cross without call.
Dec. 30	Portuguese	do	Lice	Lost 150 miles north of bar.
1881.				
Mar. 22	Danish	Brigantine	Mette	Lost on bar.
Mar. 30	French	Bark	Cline	Went ashore 2 miles north of bar in a fog.

#### SANITARY CONDITION.

The port of Rio Garnd, and in fact the whole province, is remarkably healthy, and epidemic diseases of any description are almost un-

known. Even the yellow fever, although at different times prevalent at Rio de Janeiro, Santa Catharina, Montevideo, and Buenos Ayres, all in close and constant connection with this town, has never appeared, except in an insignificant number of isolated and imported cases, landed from various craft arrived from above-named towns. The hospitals, to which the crews of vessels are admitted by a consular order, are clean and well attended to, and the dietary system good and suitable. Captains and officers of vessels can have good private rooms, at a moderate charge.

#### INDUSTRIES.

As indicated by the large quantity of bovine produce exported, the breeding of cattle is the staple occupation of the inhabitants of the interior. The natives are averse to cultivation of the soil, which, however, rich and fertile, might be rendered immensely productive as exemplified by the German colonists, who prosper, and in many instances acquire opulence.

Among the most promising industries may be mentioned the Sao Jeronimo coal mine, which, after being worked on an extremely limited scale for account of the government, became the property of an English company, who spent over a million sterling on magnificent plant, a short railway, rolling-stock, and buildings, but were unable for want of cash to carry out their programme, and the whole scheme was eventually sold for a mere song, in auction, to the enterprising firm of Holtzereissig & Co., of this province, who have since been working the mine with a shaft of 57 meters, and seam of  $2\frac{1}{2}$ , from which they work in 1.75 meters of excellent coal. They have over fifty men employed, and deliver 400 to 500 tons monthly. They have lately made a contract to supply the government steamers stationed here, and are endeavoring to form a company with a view of enlarging their operations, and more especially furnish Rio de Janeiro and the River Plate, for which they propose to run a line of light-draught steamers. The quality of the coal is favorably reported on, and is well suited for gas purposes.

*Fabrica Nacional de Tecidos*, as the wool mill of Messrs. Rheingautz & Co., in this city, is styled, is an important and fast-growing establishment, occupying one hundred and twenty hands and running machinery of seventy horse-power. Having made heavy contracts with the Imperial Government for army cloth and blankets, the strength of the establishment will be required to be doubled ere long. They also turn out large quantities of baizes, which compete sharply with English manufactures.

I may also mention the establishment for the extraction of seed-oils, another for making chairs and furniture in imitation of those manufactured in the United States, one for corn brooms, several iron foundries and workshops, and also tanneries on a small scale, in one or other of the principal towns.

#### COLONIAL PRODUCE, &C.

The tobacco, to the extent of five or six cargoes annually, is shipped to Europe. The maize, beans, mandioca, flour, potatoes, and charcoal, besides supplying the province, are shipped largely to Rio de Janeiro. Timber is exported to the River Plate, as well as the Herva Maté, of which there are several manufactories. Onions are produced largely in the neighborhood of this city, and during the season shipped to the

northern ports of Brazil. Lard is mostly consumed in the province, though some goes to Rio de Janerio.

SLAUGHTER IN THE PELOTAS SALADEROS.

It is worthy of mention that the present season bids fair to be one of the smallest on record as will be seen from the statistics below, giving the comparative slaughter during the past four years. The necessary decrease in the exports and consequent general depression in trade require no comment.

	Head.
Slaughter to date, (March 31, this season).....	101,763
Slaughter in 1880.....	153,779
Slaughter in 1879.....	221,163
Slaughter in 1878.....	238,690

Table showing the vessels entered and sailed at Rio Grande do Sul, Brazil, during the year ending December 31, 1880.

Nationality.	Entered.			Sailed.		
	Number of vessels.	Number of crew.	Tonnage.	Number of vessels.	Number of crew.	Tonnage.
American.....	6	36	1,261	11	60	2,152
Austrian.....	1	8	265	1	8	265
Argentine.....	18	505	4,122	18	506	4,122
Brazilian.....	279	6,438	89,056	283	6,488	89,662
British.....	79	507	14,355	82	461	14,159
Costa Rican (condemned).....	1	6	202	.....	.....	.....
Danish.....	28	164	4,444	25	150	3,991
Dutch.....	35	203	6,604	40	281	6,973
French.....	7	52	1,253	4	31	745
German.....	56	330	9,742	55	316	9,223
Italian.....	6	51	1,099	3	26	595
Norwegian.....	27	171	4,855	31	196	5,349
Portuguese.....	48	376	9,230	53	412	10,154
Spanish.....	13	103	1,481	.....	.....	897
Swedish.....	15	96	2,618	.....	.....	1,802
Total.....	619	9,046	150,587	624	9,094	150,089

Of this number, 270, including 61 steamers, arrived from, and 353, including 60 steamers, sailed for, Brazilian ports.

From the United States the arrivals were 32, the departure during the same period amounting to 28 in number.

In conclusion, I would bespeak the indulgence of the Department for the many defects and deficiencies in the present report, especially as regards statistics, which are most difficult, if not impossible, to obtain. At a future date, however, I trust to succeed in forwarding divers tables of interest which I am promised from various sources.

WILLIAM A. PRELLER,  
Vice-Consul.

CONSULATE OF THE UNITED STATES,  
Rio Grande do Sul, Brazil, March 31, 1881.

## THE WINE AND LIQUOR IMPORTS OF COLOMBIA.

*REPORT BY MINISTER DICHMAN, ON THE WINE AND LIQUOR TRADE IN THE UNITED STATES OF COLOMBIA, AND HOW THE AMERICAN PRODUCTS MAY BE INTRODUCED THEREIN.*

Of the merchandise introduced into this country, as shown by an examination of the records of the Colombian treasury department, the articles of brandy, wines, and liquors form no inconsiderable part, both in regard to quantity and value.

As the amount of exportation from the United States to Colombia in this branch of trade is insignificant, I beg leave to call your attention to this fact and to inclose a table showing the amounts of brandy, wines, and liquors introduced into Colombia for each of the three years from 1876 to 1879, in order that any parties interested may judge for themselves whether the volume of this branch of commerce is of sufficient importance to justify an effort for obtaining a share thereof.

I may add that on the score of quality the brandy, wines, and other liquors produced in the United States have nothing to fear in the competition in the markets of this country with like articles imported from Europe; if anything, the productions of the United States are better, and as they are sold at a lower price I can see no good reason why this branch of commerce should not be wholly diverted to the United States.

ERNEST DICHMAN.

UNITED STATES LEGATION, *Bogota*.

*Summary of the sum totals of brandies, wines, and liquors which passed through the custom-houses of Buenaventura, Barranquilla, Carthagena, Rio Hacha, Santa Martha, and Tumac, ports in the republic of the United States of Colombia, South America, in the years 1876-'77, 1877-'78, 1878-'79.*

[Taken from the customs records of the country.]

Description.	1876-'77.		1877-'78.		1878-'79.	
	Packages.	Kilograms.	Packages.	Kilograms.	Packages.	Kilograms.
Brandies.....	6, 293	183, 172	15, 976	420, 880	21, 280	572, 043
Beer.....	1, 123	51, 006	1, 708	73, 672	2, 011	86, 691
Gin.....	1, 607	53, 738	579	22, 542	1, 239	45, 292
Wines, various*.....	7, 075	293, 458	13, 314	513, 635	17, 494	822, 956
Liquors and cordials.....	356	11, 543	2, 532	75, 129	329	9, 203
	16, 454	592, 917	34, 109	1, 105, 858	42, 353	1, 536, 185

\* Principally champagne, sherry, port, and claret. According to this table the consumption appears to be increasing.

BOGOTA, *September 30, 1880.*

## PUBLIC IMPROVEMENTS IN COLOMBIA.

*REPORT BY CONSUL SMITH, OF CARTHAGENA.*

Having been verbally informed by Dr. Benjamin Noguera, the president of the state of Bolivar, that the canal connecting this port with the Magdalena River is now navigable for all boats plying on that river, I deem it of interest to communicate the intelligence to the department.

This canal alone will reduce, by at least 30 per cent., the transportation charges levied on the commerce of the interior heretofore finding its outlet by way of Savanilla. The Magdalena River is the great highway of commerce and travel in Colombia, and is, commercially, the most important river in South America, its present traffic amounting to \$25,000,000 annually. It is therefore clearly evident that the safe and uninterrupted transit along this commercial highway is of the utmost importance to the nation.

All that is necessary now to insure this is the completion of the Magdalena Railroad, now in course of construction by an American company, between Puerto Rongito and Honda at the head of navigation of the Lower Magdalena River. I can only say that my knowledge of this railroad is derived from the government officials, with whom I enjoy an intimate acquaintance, representative merchants, and those engaged in the steamboat navigation of that river. From their statements and representations I have no hesitation in expressing my belief that the railroad referred to is of imperative necessity to the existing and rapidly growing commerce of the interior, of which the Magdalena River is the outlet, and will, when completed, be the most important and remunerative railway in Colombia. Between the terminal points of the railroad, the Magdalena is at all seasons of the year very difficult of navigation for steamboats, owing to the numerous sharp bends, constantly shifting sand-bars, sunken rocks, narrow channels, swift currents, and numerous whirl-pools and rapids. Even under the most favorable conditions steamers rarely make this short but dreaded passage, not exceeding thirty miles, without incurring serious damage, such as breakage or loss of rudders, or the staving of compartments, while frequently the great force of the current carries them against overhanging trees, sweeping away smoke-stacks and upper works.

This section of the river is noted for its many serious accidents, which have occasioned complete destruction of steamboats and loss of life, as well as millions of merchandise and treasure.

During the rainy season in the Upper Magdalena basin the current of the river at the point alluded to, according to the estimates of steamboatmen, runs from eight to ten knots per hour. Consequently the steamboats make but slow progress in ascending. Moreover, the river is subject to sudden falls occurring within a few hours, leaving scarcely ten inches of water in the channel, leaving the boats high and dry until another rise, which is often delayed from three weeks to three months, thus necessitating a transfer of the cargo and passengers to land, and the tedious and expensive conveyance by mules to Honda.

I am aware that the people of the interior earnestly desire the speedy completion of the railroad, and I am assured the government will cordially extend every facility in its power towards assisting the company that builds it by a remission of the imposts on supplies and materials for its construction, which, I understand, under the railroad laws, has been already guaranteed.

I am unable to state from personal observation the exact amount of the through freight from Honda to the seaboard cities, but from valuable information and estimates I can confidently place it at 125,000 *cargas* of 250 pounds each per annum, with a passenger traffic of at least 3,000 to and fro.

In case a certain and speedy transit is guaranteed, the commerce of this wonderful country will be rapidly augmented. Even under existing conditions each year witnesses a marked increase in the exports

from these inland territories of coffee, tobacco, hides, and Peruvian bark.

Colombia is evidently destined to reap great advantages from her admirable system of government and wise encouragement of foreign enterprises. Since 1860 revolutions have become a thing of the past, and the people have been busily and prosperously occupied in the arts of peace, and in these respects have done more wisely than their neighbors.

Since the beginning of the Peruvian and Chilian war, foreign capital is being withdrawn from those countries and invested in the various fields of enterprise that are offered in Colombia.

The government, fully appreciating the commercial wants of its people, is now engaged in perfecting a system of public improvement on an extended scale, such as telegraphs, public wagon roads, railroads and canals, superseding the present imperfect means of communication between its widely separated commercial centers; and it is but a question of time when Colombia shall rate her place among the most progressive and civilized republics of this continent.

EDMUND W. P. SMITH,  
*Consul.*

UNITED STATES CONSULATE,  
*Carthage, June 10, 1881.*

## HOW TO INCREASE AMERICAN TRADE IN VENEZUELA.

REPORT BY COMMERCIAL AGENT PLUMACHER, OF MARACAIBO.

I take the liberty of calling your attention to the great disadvantage under which American trade labors in this country on account of the carelessness and indifference of many merchants in the United States in the preparation and packing of goods for the South American markets. In years past it was almost a maxim in our country that anything was good enough for Spanish-America, but recent experience plainly shows that no American competition will now succeed unless attention is paid not only to the wants of the people but also to the peculiarities of this region.

It would be a good idea and profitable in a mercantile sense if the head of one of our great commercial houses could make a personal inspection of this country and judge of the special requirements for successful trade. The general idea of the exporters to South America seems to be that Maracaibo and the interior bear the same relation to New York as does Philadelphia or Baltimore, and the sooner they disabuse themselves of such a supposition the better it will be both for themselves in a pecuniary sense and for the commercial reputation of the United States.

From an extended observation, not only in my consular district, but also from information received from persons well informed as to the mercantile status of the South American Republics, I am reluctantly forced to admit that the United States holds no respectable commercial position on this great continent.

There are many points to which I could call the attention of the department, but as for the past three years our consular officers in all

parts of the world have zealously advised our merchants as to the best means of securing foreign trade, I refrain from repeating advice which seems in many cases to have been quite thrown away. There are three subjects, however, which I beg to submit:

1st. The preparation of articles for the tropics.

In this connection it may be well to say to the dairymen and commission merchants that foreign butter and cheese are eagerly sought for and bought by the people of this section, but when repulsive masses of tallow and oil are sent to these ports, labeled "best American butter," it is no wonder that purchasers prefer to buy, at double prices, Danish or Norwegian butter which, as a rule, is good and pure.

This stricture will apply equally to cheese and hams, which, like the butter, are too often sent, as I am inclined to believe, as a single speculation by some individual who cannot dispose of his damaged goods at home. As a large proportion of American exports consists of provisions, it will be easily seen that such irregular proceedings are hurtful in the extreme to our mercantile interests.

2d. The method of packing goods for this market.

Our merchants in New York and other cities who are accustomed to a daily dispatch by rail, with every convenience for the carriage and safe delivery of goods, would be wonderfully surprised and perplexed if brought face to face with the manner of transportation in this country. In the interior, which is really the great market, Maracaibo being only a dispatching point for the great states of the Cordillera and a goodly portion of the richest part of the neighboring republic of Colombia, there are serious obstacles to overcome, and the only method of travel is by means of mules or asses, which frequently are obliged to remain on the mountain roads for days and even weeks awaiting a favorable change in the weather to cross the numerous streams and rivers which flow from the Andes.

Strength and portability are prime requisites in packing, and as the superiority of many classes of American goods is universally recognized, there is no visible reason why we should not bear the palm in machinery, boots and shoes, rubber goods, mining implements, and agricultural specialties, and what is of the greatest importance, prints, sheetings, and cotton goods generally.

Flour is largely imported almost exclusively from the United States, and often arrives in barrels with but one hoop at each head instead of being constructed with double strength, as should be the case, considering the frequent and excessively careless handling encountered, and it is by no means unusual to see barrels broken and the contents scattered in every direction, causing serious loss, and as the duty on flour is very high (five cents per kilogram), consignees are not thereby encouraged to send further orders.

In this connection I have also to refer to the scandalously careless method of disembarking goods from the steamers touching at these ports. Much merchandise is injured and money lost, all of which could be easily avoided by the exercise of greater care and attention. It must also be remembered that to reach the interior markets mountains must be crossed varying from 2,000 to 15,000 feet above sea level; rivers must be forded and many other difficulties encountered, which can only be overcome by the strongest and most careful method of packing.

The last, though by no means the least, important point in connection with our commercial interests in these regions is the necessity for sending agents throughout the country with samples, illustrated catalogues, &c.,

and call the personal attention of the merchants and planters of the interior to American goods. Other nations are far more enterprising than our own in this respect, and I am informed by a gentleman who traveled through the whole extent of Colombia, from the Pacific to this port, that he met during the entire journey but one representative of an American house.

Our merchants should send young enterprising agents who are willing to submit to a certain amount of inconvenience attendant upon mountain travel, and who possess a fair knowledge of Spanish, to introduce their merchandise and open a connection with what will soon be a most important trade, which even now is of large and profitable proportions.

As I have previously stated I believe a preliminary tour of observation would be an excellent plan, as the peculiar requirements of the country would be then understood and could be taken advantage of with profit.

E. H. PLUMACHER,  
*Consul.*

UNITED STATES COMMERCIAL AGENCY,  
*Maracaibo, Venezuela.*

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## VISITATION OF LOCUSTS AT MARACAIBO.

### REPORT BY COMMERCIAL AGENT PLUMACHER.

I have the honor to report that for the first time in the history of Venezuela the plague of locusts has made its appearance in this city and consular district.

On the 28th ultimo the insects appeared in immense numbers from the northeast, and news from the northern towns assure us that they have left nothing green in their track. Should these first swarms be the precursors of following ravages, it will in reality be a terrible calamity for this country, which is already suffering from continued drought, scarcity of employment, and the depreciation in value of the national products.

A great part of the wealth of Venezuela consists of cattle and goats, and it will be difficult to estimate the immense loss and consequent impoverishment should, as it is feared, a severe visitation of this scourge ensue; and it is not too much to say that there will be actual danger of famine in many districts.

Although Venezuela has until now been spared, yet in the year 1878 the locusts made their appearance in the neighboring republic of Colombia, ravaging the most fertile valleys, and causing incalculable loss and suffering. They remained in Colombia until 1880, and passing to the coast it is supposed they deposited their eggs in the hot, sandy country in the vicinity of the peninsula of the Goajira, from whence the present invaders evidently come.

In this city alone the destruction has been great, the police having collected already three hundred cart-loads of dead insects in the streets along the shore of the lake, and many more are still lying in every direction to such an extent that there is a serious fear of disease being produced by their decomposition. Indeed, the sick-rate of the city has perceptibly increased since their appearance.

It is no exaggeration to say they darken the sun, and it is impossible to give but a faint idea either of their ravages or of the excitement of the people, who anticipate a more terrible calamity than either war or revolution to add to the miseries of this already unfortunate country. Religious processions have been formed in the streets, and the images of the saints carried in state throughout the city in the hope that their intercessions may avert the threatened misfortune. In the words of a native writer: "The locust is the devil in a living form; the locust is the incarnation of the fallen angels."

At present the plague has mitigated greatly in this city after three successive days of immense swarms, having evidently proceeded to the south, whence we may expect to receive early reports of its disastrous progress.

E. H. PLUMACHER,  
*Commercial Agent.*

UNITED STATES COMMERCIAL AGENCY,  
*Maracaibo, June 4, 1881.*

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### VENEZUELAN TARIFF CHANGES.

REPORT BY COMMERCIAL AGENT SILER, OF LAGUAYRA.

I have the honor to inform the Department of State that an act has been recently passed by both houses of the Venezuelan Congress, and received the approval of the Executive, which, when put into operation, will sensibly affect the tariff laws of this country. I have been unable to procure a copy of the text of this law, but hope to be able to do so at an early day, when I shall advise the Department of its leading features; however, I am enabled to say at this time that a considerable import duty has been placed on several articles which have heretofore been admitted on the free list. Among these may be mentioned corn, rice, beans, and several other food products. There are other articles in which considerable trade has been carried on here, which are peremptorily prohibited from importation by this new act. In this list are mentioned cocoa, sugar, certain grades of tobacco, wooden toys, &c.

The time fixed for this new tariff law to go into effect was July 1, but it appears that among the other extraordinary prerogatives invested in the Executive of this republic is one that by a simple proclamation may cause any law to go into immediate operation, notwithstanding a different period may have been fixed by Congress.

As might be expected, business is timid and unsteady here just now in consequence of this event; and this, joined to the scarcity of money in circulation, want of confidence in the government, and general feeling of uncertainty which prevails throughout the republic, would seem unfavorable auguries of its immediate prosperity.

JAMES W. SILER.

UNITED STATES CONSULATE,  
*Laguayra, Venezuela.*

## CONTINENT OF ASIA.

## PROHIBITION OF AMERICAN PORK IN ASIA MINOR.

REPORT BY CONSUL DUNCAN, OF SMYRNA.

Turkey also catches the contagion of *Porkophobia* from France, and other European countries that have followed her lead, and forbids the importation of American salted pork into the Ottoman Empire.

This may be regarded as a most extraordinary solicitude on the part of the Sublime Porte for the health and well being of her *Christian* subjects, quite in contrast with Sadyk Pacha's action at Scio, for it is well known that neither Turk nor Jew ever deigns to touch this polluted meat in any form. This action, then, is taken entirely in the interest of her Christian subjects. The Turks even propose to surpass the French in their zeal, in so far that they order all American pork already in the country to be seized and destroyed, while, I believe, the French Government consents to admit what was actually on the way. Thus, one of the important items of American trade at Smyrna and in the entire Levant is destroyed as the result of the hasty and inconsiderate action, as it would now seem, of the French Government, for the other governments have only followed in the wake of the French. Of course, if it be a fact that American pork is generally, or even very frequently, infected with trichinæ, and therefore dangerous to the public health, every government has not only the right, but it is its duty, to forbid the importation, just as it has the right to establish quarantine against contagious diseases. But if we can credit not only the official reports of several of our most distinguished consuls in Europe, but also so important and trustworthy a body as the Chamber of Commerce of Havre, the French Government would seem to have based its action on entirely incorrect information as to the actual condition of American pork. The latter body urges its own government, as I see in the papers, to rescind its order entirely on the ground that there was never any good reason for issuing it.

For the French Government still to maintain this order after all the information and evidence produced as to the perfectly healthy condition of American pork, and in view of the great damage it has already done, and is likely to continue to do, to an important article of American production and foreign trade, could hardly be construed otherwise than as an intentional hostility to important American interests; and she could not reasonably complain of any measures our government might see fit to adopt in the interest of public health against adulterated French wines and brandies, which are universally admitted to be very injurious to health, probably much more so than our salted pork.

B. O. DUNCAN,  
Consul.

UNITED STATES CONSULATE,  
Smyrna, April 20, 1881.

**REAPPEARANCE OF THE LOCUSTS IN ASIA MINOR.***REPORT BY CONSUL DUNCAN, OF SMYRNA.*

The saying that troubles never come single is certainly being verified with regard to this region. Not enough that the country should be drained of its money and able-bodied men for war purposes; not enough that a frightful earthquake should kill and maim thousands, and leave tens of thousands in destitution; but now must needs make its appearance the locust, that terrible scourge of Asia Minor, for several seasons past, and in very alarming proportions at that. It is only necessary in addition to have the plague spread westward from Mesopotamia—as it seems threatening to do—to make the prospects appear about as dark as possible.

The locusts have just hatched out and are yet too young to do much damage. But they have appeared in such large quantities that there is general alarm for the result during the summer. So it would seem that Consular-Agent Calvert's "locust-egg destroying grub" has not been very efficient in this region, at any rate. Midhat Pasha, with his usual energy, is doing what he can to extirpate them by ordering out thousands of people every few days to catch them in bags and bury them under the ground. Already the papers report that 18,000 kilograms or about 42,000 pounds, of the young locusts have been thus destroyed. It seems a novel way of getting rid of them, but if the entire country infested by them took such energetic measures it might do some good. But such action in single communes or even provinces will not avail much, for the locusts are known to fly great distances in immense swarms, darkening the air like clouds, it is said. The habits of these insects are such, especially when small, as to facilitate this mode of destroying them. They collect in masses or heaps like bees settling after swarming, and are then easily swept into bags and buried under the ground.

Not having been here during a locust season I am not able to speak from personal knowledge of the numerous evils they bring upon the country. But terrible stories are told of the desolation they leave behind them. They devour every particle of verdure, every plant and shrub, and even the more tender bark of the trees. They impregnate the water and air with their disgusting odor; the chickens eat them and their eggs are not fit for use; they fall into the sea where the fish eat them, and are then not eatable.

There is at present great uneasiness lest serious damage—if not a famine—may result again this season from this devastating insect, if some means are not found to check it in time.

B. O. DUNCAN,  
*Consul.*

UNITED STATES CONSULATE,  
*Smyrna, April 20, 1881.*

**AMERICAN TRADE AT TREBIZONDE.**

*TRANSLATION OF A REPORT WRITTEN BY CONSULAR AGENT MARENGO, AND FORWARDED TO THE DEPARTMENT BY THE CONSUL-GENERAL AT CONSTANTINOPLE.*

I have the honor to transmit herewith returns of commerce and navigation of the port of Trebizonde during the year 1880. From these returns you will understand the importance of the commerce of our town. As

until now there was no consular agency of the United States in this city, no exact return was made of the goods imported from America. I have, however, endeavored to obtain the most correct data on the articles imported as well as on their quantity, and it was all I could obtain with great difficulty from the custom-house of our city.

As there is no direct navigation between America and Trebizonde, merchandise arrives here by transshipment and is bought at the various markets of Europe, so that it comes through second and third hands, and its cost is so much increased as to prevent its having a large sale.

I think that it would be in their interest if manufacturers were to send samples and prices current, which would attract the attention of the merchants, who, finding it an advantage to import merchandise direct from the place of production instead of overpaying for it by taking it from second and third hands in the European markets, would import larger quantities.

American goods are in much demand here and, their quality causes them to be preferred to those of England, France, and other countries, but they are little known, and I am therefore of the opinion that the only means of introducing and extending American commerce in these countries is to send samples and price lists, and I am persuaded that in a short time commercial relations will be established between the two countries.

The amount of American goods imported at Trebizonde during 1880 amounted to \$171,970. This sum represents only the goods landed at Trebizonde, a considerable quantity having also been landed at different places of the coast. Among the articles the principal are petroleum, stoves, metals, wrought and unwrought, cutlery, clocks, and watches.

Persia and the Caucasus, which are in business connection with Trebizonde, would find it to their advantage to apply directly for the articles that are sold in those countries.

Wishing, therefore, to be of service to the country which I have the honor to represent, and to extend the commerce of the United States in these countries, I desire to place myself at the disposal of the commercial chambers and the manufacturers and producers in order to make their products known.

J. B. MARENGO,  
*Consular Agent.*

UNITED STATES CONSULAR AGENCY,  
*Trebizonde, April 30, 1881.*

IMPORTS AT TREBIZONDE.

Whence.	Value.
Anatolia.....	\$109, 236
Armenia .....	2, 250
Austria .....	43, 898
Belgium and Netherlands.....	27, 897
France.....	1, 057, 870
Germany .....	16, 520
Great Britain .....	4, 081, 850
Greece.....	21, 280
Italy.....	16, 240
Kurdistan .....	3, 360
Russia .....	23, 440
Spain.....	16, 500
Transcaucasia .....	2, 100
Turkey and Egypt .....	686, 202
United States.....	171, 970
Total of imports .....	6, 279, 613

## EXPORTS FROM TREBIZONDE.

Whither.	Value.
Anatolia .....	\$177,400
Austria .....	386,608
Constantinople.....	1,757,392
Danube .....	66,000
Erzeroum.....	236,000
France.....	1,044,000
Great Britain.....	2,828,500
Italy.....	16,260
Persia .....	1,438,100
Russia .....	428,000
Spain .....	4,800
Transcaucasia .....	30,100
Total of exports.....	7,912,720

## PRINCIPAL ARTICLES OF IMPORTATION, AND COUNTRIES WHENCE IMPORTED.

Articles.	Countries.
Manufactures .....	England and France.
Ironmongery .....	France and Germany.
Sugar .....	France, Netherlands.
Tea .....	Great Britain.
Coffee .....	France.
Wines and liquors.....	France, Great Britain, Austria, Spain.
Olive oil.....	France, Archipelago.
Soap .....	Turkey, Greece.
Glassware.....	Belgium.
French nails .....	France, Belgium.
Stearine candles.....	France, Belgium, Netherlands.
Tin .....	United States, Austria.
Oranges and lemons.....	Italy, Archipelago.
Drugs.....	France, Netherlands, Great Britain.
Machinery and tools .....	United States, Austria, Great Britain.
Colonials .....	France, Great Britain.
Petroleum.....	United States.
Matches .....	Austria, Italy.
Watches and jewelry .....	France, Switzerland, United States.
Steel, copper, &c.....	France, United States.
Gold thread .....	Austria, Germany.
Fruits.....	Turkey, Greece.

## PRINCIPAL ARTICLES OF EXPORTATION, AND COUNTRIES OF PRODUCTION.

Articles.	Countries.
Tobacco .....	Anatolia.
Tombeky (tobacco) .....	Persia.
Nuts .....	Trebizonde and neighborhood.
Beans .....	Do.
Provisions .....	Trebizonde and Armenia.
Wheat and flour.....	Anatolia.
Raisins.....	Persia.
Silk and silk goods.....	Do.
Cotton .....	Persia and Anatolia.
Carpets and shawls .....	Persia and Kurdistan.
Wool.....	Anatolia and Persia.
Gall nuts.....	Anatolia and Persia.
Hides and skins.....	Armenia and Persia.
Butter and tallow .....	Armenia and Trebizonde.
Fruits.....	Trebizonde and neighborhood.
Vegetables.....	Trebizonde.
Oranges and lemons.....	Rizeh and Trebizonde.
Shoes .....	Trebizonde.
Linen of Rizeh.....	Rizeh and Trebizonde.
Rice .....	Neighborhood of Trebizonde.
Gums and resins .....	Persia and Armenia.
Fish oils .....	Neighborhood of Trebizonde.

**INCREASED CONSUMPTION OF AMERICAN GOODS AT CEYLON.***REPORT BY CONSUL MONEY, OF COLOMBO.*

Again recurring to the subject of American products, I would now say that since my No. 130 of May 11 on kerosene oil was written, that commodity has become quite scarce, and the stocks in hand are reduced to smaller proportions than have been known here for the last three years. This scarcity is attributable to the rapidly increased consumption of the article by the natives, who within a few months have taken to use it largely in their temples, where heretofore only cocoa-nut oil was consumed. I make no doubt therefore that the figures, viz, 40,000 cases per annum, named in my dispatch as the prospective yearly consumption here, will be more than realized in a few years, and I hope that such an opening for the extension of our trade will not be lost sight of by our petroleum dealers.

In continuance of this subject I may also say that the trade here in many kinds of American goods is so largely on the increase that I thought it proper to apply directly to those firms dealing in them for such particulars as they were willing should be published in America. My requests were most courteously and promptly acceded to by every firm but one, and I have much pleasure in being able to report that whereas, as stated in my annual report of June 30, 1880, the general merchandise imported from America on through invoices via Europe that year would not have exceeded \$2,000 in value, the imports of that description for the present fiscal year will about reach \$30,000, besides American tobacco, salt provisions, naval stores, &c., of at least equal value, obtained through second hands in Europe, and \$14,000 worth of kerosene oil from Bombay.

These figures are in some respects approximate, for merchants naturally object to state the actual cost of their goods; I think I may say, however, that they are sufficiently correct to show that the trade in American products here this year has increased many hundred fold, and the importations consist of weighing machines, tools, locks, clocks, electroplated ware, pumps, water engines, fire-arms, canned goods, cotton goods, salt provisions, soap, naval stores, kerosene oil, and miscellaneous articles, principally new inventions. In the introduction of these goods the firm of Messrs. John Walker & Co., Colombo and Kandy, has taken a notable lead, and I quote the following passage from their obliging letter to me on the subject:

The above list will give you some idea of what we are doing in American goods, and while you can understand that for commercial reasons we don't care to state the exact value of our importations, we are pleased to be able to state that in each department our business in those goods is steadily increasing.

I feel constrained also to mention that Messrs. Walker & Co. declare with considerable earnestness that free consignment from America here would have a mischievous effect on this new and growing market, and they recommend American exporters generally not to resort to that mode of trade.

Messrs. W. H. Davies & Co., who export to, and import from, the United States, also deprecate, as a rule, the adoption of free consignments, and it would perhaps appear that the present system in vogue of largely advertising our goods coupled with their undoubted excel-

lence, would suffice to bring most of them as rapidly into the market as is consistent with healthy trade. In fact, this view is somewhat borne out in the case of our canned fruits, which, although comparatively unknown here three years ago, have now about superseded all other importations in that line. These little facts ought to be to us a source of pride as well as encouragement, for not only are all of our goods heavily handicapped by extra cost of transport on account of the indirect and expensive routes through which they reach this market, but their adoption here has been during a period of great financial distress, when in fact the consumers were so pressed for the wherewith to provide for actual necessities that they scarcely would indulge in luxuries unless strongly tempted by quality and price; and thus is demonstrated the superior quality of our goods, for with respect to price there is still something to be desired, for they are dearer than their European competitors, and for this the extra cost of transport is largely answerable.

W. MOREY,  
*Consul.*

UNITED STATES CONSULATE,  
*Colombo, Ceylon, June 22, 1881.*

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### AMERICAN SHIPS AND AMERICAN SEAMEN.

*REPORT BY CONSUL MOREY, OF CEYLON.*

The articles of Consul Brooks, of Cork, in the November and February numbers of Consular Reports, embolden me to approach a subject in which I take a great interest, viz, the merchant marine of our country, the decadence of which is as much to be deplored as is its resuscitation to be desired, by all patriotic Americans.

I shall write somewhat feelingly on this subject, for some of my early years were spent at sea, and I remember well the period alluded to in the report submitted by the Hon. W. A. Russell, from the House Committee on Commerce. When quoting from Mr. Grentham, an English authority, on the condition and estimation of American shipping thirty years ago, he truly says, in the statement, that "those celebrated ships were then the lions of Liverpool, &c." He might have added of all the principal ports in the world, for at that time, and down to the breaking out of our civil war, the white sails of our merchant marine dotted every sea, and the matchless forms of our clipper ships adorned every maritime resort, carrying off not only the palm of beauty, but the choice of freights against all comers. But what was, perhaps, most gratifying to our national pride, those ships were navigated largely by native Americans, for in those days it was fashionable for the sons of our best citizens, farmers, merchants, and professional men to go to sea, and our ships' forecastles commonly contained native American sailors, who, from character, mental ability, and acquirements were the peers of any young men of a like age in any of the walks of life. This, I may say, for the inference is obvious, was owing largely to the fact that our commercial marine was a source of national pride, and when put in competition with that of the rest of the world excited the enthusiasm of our young men, and worthily stimulated their national love of adventure and desire for pre-eminence, in a manner unequaled by any other occupation at that period.

In 1861, however, the war broke out, and our noble youth were called from peaceful occupations to fight their country's battles, and the ensuing five years were fruitful of more than sufficient exciting occupation to drive from young minds the comparatively tame allurements of the merchant service.

In the mean time a powerful and jealous rival, profiting by our necessities and troubles, improved the opportunity not only to almost completely destroy our commerce, but with a consummate sagacity which all of our people seem to lose sight of, invented board of trade rules for the classing of wooden ships, so militating against the American style of construction, that, coupled with the war rates of insurance, the difficulty of insuring in American bottoms at all, threw the few ships that were left us completely out of the chance of obtaining perishable cargoes, condemning them for years to guano and other low-freight loadings.

To my knowledge, for a period of twelve years, and in a great measure even to the present day, beautiful and staunch American vessels have been unemployed in foreign ports, or accepted of freights too low to much more than pay expenses, while crank old foreign craft, just at the tail end of a high class, and prone to damaging their cargoes, have loaded for the United States at high rates, with cargo bought with American money on American orders, and simply on the plea that, being classed at Lloyds, the rates of insurance were largely in their favor.

How much our own merchants were to blame for this, inasmuch as they allowed their goods to be insured in foreign offices instead of their own, I am not prepared to say, but I do know that as soon as invoices began to contain the clause "*Insurance provided for in America*," our ships were sometimes able to pick up one of these freights.

However, the effect of this discrimination has been to degrade the status of American ships, rendering them, as was intended, unprofitable investments. Our smart young men have now therefore very little incentive to go to sea, and unless something is done to raise the tone of our merchant service, we cannot hope to have many native American sailors.

I doubt, however, if the measure recommended by the Hon. Mr. Reagan, in his minority report, would prove a remedy, viz, permitting the purchase and naturalization of foreign steamships; for that course would simply be to pay the owners of foreign bottoms in advance a large sum of money which otherwise those owners would be compelled to work for over a period of years, and earn by carrying our cargoes; and I would ask, after our citizens have paid forty or fifty million dollars for steamships to our insular cousins, in return for the terrible mischief they, in our day of affliction, wrought us, in the destruction and debasement of our merchant marine; after we have taken, in fact, so much gold out of circulation in the United States to be hoarded by British capitalists, and valued as against silver at 25 to 30 per cent. premium; and even then the vendors of those steamers still continue, as they will continue, to compete with ships of their own, against those we have been foolish enough to buy from them—after we do all this, what shall we have gained by the operation? Why! a fleet, the use of which we may always have on better terms, viz, at current rates, when required. After so belittling ourselves, we would be as far as ever from a national school of seamanship, for I am much mistaken if the best of our young men would not fail to take pride in navigating ships acquired under such humiliating circumstances.

No, above all things, don't buy ships from the English, nor pay them subsidies any more than they subsidize American vessels.

Protect and encourage domestic ship-building.

Have an American board of trade, and discriminate against foreign bottoms, giving bounties to native steamships of approved construction, when built wholly of domestic materials.

Adopt stringent rules, and a thorough system of providing for our ships being skillfully and reputably commanded, officered, and manned.

Pay liberally for carrying the mails; for this of itself would be so conducive of a diminution of freights as to reimburse the "western producers," to whom Mr. Reagan alluded, all that a protective system can possibly cost them.

In short, adopt a vigorous and truly national policy, encouraging, especially and liberally, the inventive genius of our citizens in the discovery and adoption of new economical motors, scorning all cheap and un-American expedients, and declining to play "second fiddle" to any other nation in a matter so largely fraught with our dignity and prosperity.

If such measures as these properly carried out will not result in our reacquiring a respectable merchant marine, then I am mistaken.

W. MOREY,  
Consul.

UNITED STATES CONSULATE,  
Colombo, May 31, 1881.

## CRUISE OF THE SWATARA IN JAPANESE WATERS.

REPORT, BY CONSUL JONES, OF NAGASAKI, OF HIS VISIT ON BOARD THE SWATARA TO THE GULF AND CITY OF KAGORHIMA.

Having availed myself of an invitation from Capt. W. T. Sampson, of the United States ship Swatara, to accompany him on a week's cruise to the gulf and city of Kagorhima, I have thought it might not be without interest to communicate to the Department a brief report of the same.

The Gulf of Kagorhima makes up into the island of Kin Shin at its southern extremity, at a distance due south from Nagasaki of 150 miles, and the city of Kagorhima, the capital of the province of Satsuma, is situated on a broad plateau, on the left side of the gulf, 30 miles from its entrance. Nagasaki being the only port on the island of Kin Shin which is open to the visits and the commerce of the world, Satsuma and Kagorhima are consequently secluded, and in a measure *terra incognita*. No foreign ships or foreigners are allowed, as a general thing, to break this seclusion.

But the Swatara while at Tokio had secured, through the American minister, a permit to cruise in forbidden waters, and, through the same source, I had a general passport to visit any portion of the empire. Thus, provided, on the afternoon of the 27th of March the Swatara lifted anchor and started on her cruise.

The harbor of Nagasaki, as I have mentioned in former reports, is considered by naval officers one of the finest in the world. Protected by mountains on three sides, of volcanic origin, and of wild and romantic aspect, clothed to their summits in the richest verdure, presents a fresh and varied scenery from the deck of the ship, picturesque in the extreme, and of a character unlike any other in the world, and peculiar to Japan. The harbor was filled with sails as we passed out. At an-

chor a number of Russian and other men-of-war, and afloat the quaint and varied craft of the country, plying in and out, in traffic with the numerous small towns of the coasts.

The entrance to the harbor is very accessible, and is indicated by a light-house with a revolving light, distinctly visible 20 miles at sea. The parapets of several forts are plainly discernible, but dismantled now, and unoccupied by troops since the empire has begun its new life. Just inside the entrance we pass close by the side of the island of Pappenberg, a small island which rises abruptly out of the bay, to the height of a small mountain, famous as the scene of a historic tragedy in 1637, when a Christian war was waged at Shimabara. The Christians rose, ten thousand in arms, seized an old castle, fortified, it and were besieged by the Shoguns. After great slaughter the castle surrendered, and then the massacre of 37,000 Christians began, and was finished by the hurling of thousands more from the rock of Pappenberg. The little island slumbers peacefully enough now on the unruffled bay, and its wooded slopes are a favorite resort of picnic parties from Nagasaki during the summer months, and quite other scenes are enacted there. Below the light-house a mile or two, in a group of other islands, with clouds of smoke hanging over it from the busy furnace of Tankorha, is Taka Shima, the great coal-field of Nagasaki, the most important in Japan or the East. Of this island and its coal supply I have written to the Department in a former report. Away off to the right, in the Yellow Sea, is the important group of the Goto Islands. These islands are well populated and contain several towns. The inhabitants are engaged in agriculture and fisheries.

At certain seasons whales resort to the waters about these islands, and quite a lively business is transacted in their capture; whale meat at such times is abundant, and may be seen exposed for sale everywhere in the markets of Nagasaki.

The variety and quantity of fish in the waters of Japan are something wonderful. The Japanese are expert fishermen, and the fisheries are a valuable industry. They use for food almost everything that comes out of the sea, from the sea-weed to the devil-fish, and a large trade is carried on in curing and exporting dried fish from Nagasaki to China. When our ship had reached a distance of seven or eight miles from land and out of the way of fishing boats, a target, erected on a buoy, was lowered from the side and set afloat. The course of the ship was then changed, to steam around this target at a distance of 1,000 yards or more, and the guns brought to bear in target practice. Several hours were thus spent. The management of the guns on the part of the officers and crew and the target firing exhibited high proficiency. The target was then picked up, and at nightfall we headed for our destination. The sea was smooth and phosphorescent, and schools of porpoises flashed and played about the ship.

When I came on deck in the morning we were approaching the entrance to the Gulf of Kagorhima. The outlook was one of rare beauty and interest. Near the point of entrance and right from the water's edge reared the symmetrical form of a mountain, as nearly as possible a perfect cone, rising, according to measurements made from the ship, to a height of 3,069 feet. On our right several miles off at sea was Iwoga Shima, an island from which towered an active volcano, exhibiting to our unaccustomed sight all the splendor of an eruption, throwing high in air volumes of flame and smoke. A writer speaking of the first exploration of this island, says, in effect, that it is not above one hundred years since any one ventured thither. It was thought before that time to be

wholly inaccessible, and by reason of the thick smoke and flame which were observed continually to arise from it, and of the several specters and other uncommon frightful apparitions natives fancied they saw there, chiefly in the night, when sailing by, it was believed to be the dwelling place of the devil, till at last a resolute man offered himself and obtained leave accordingly to go and examine the state and situation of it. He chose fifty resolute fellows for this expedition, who, upon going upon shore, found neither hell nor devils, but a large flat spot of the mountain, which was so thoroughly covered with sulphur that wherever they walked a thick smoke issued from under their feet. Ever since that time, it is said, this island brings in to the Prince of Satsuma about twenty chests of silver per annum, arising from the sulphur dug up there.

Further away to the right of this island, to the south and across Van Dieman Straight, on the island Tanega Shima, glittered a mountain chain covered with snow.

The entrance to the gulf is wide and deep, with this symmetrical mountain as a sentinel at its gate, directing the sailor many miles at sea. As we steamed slowly up the gulf the scenery on either side was very interesting, here and there arising from the water a little island, and stretching away on the right a chain of mountains, peak after peak arising above the other as far as the eye could reach. Unlike other parts of Japan I had visited, there was a singular absence of life on the shores and of boats on the bay.

At 12 m. we cast anchor abreast of the city of Kagorhima. By some unknown telegraphy, the people were apprised of our approach, and the entire population crowded the beach. The city is situated on the left side of the bay, 30 miles from the entrance, and stands on a broad plateau, with a semicircle of hills running its entire length inclosing it. In front of the city, on an island, is the active volcano of Mitake, which is about 4,000 feet high. It is said that in 1828 there were violent eruptions of this volcano, coincident with severe earthquakes, which did great damage to the city. At present it lazily smokes, with its crater, however, rent and torn, the signs of former terrible convulsions. Several officers of the ship, during our stay, ascended to its summit, and expressed themselves on their return as amply repaid in what they saw for the toil of the rugged ascent. The Swatara was the first American man-of-war that ever entered the Gulf of Kagorhima, and for the first time the people beheld the American flag. The excitement caused by our arrival was considerable. Soon after casting anchor the captain's boat was lowered, and I accompanied him ashore. The moles, and wharves, and every available space were thronged with people. We landed, but the crowd that gathered around us was so dense that we could not move. Directly a body of officers with long sabers were seen approaching, the crowd gave way right and left before them, and we were escorted to the top of a long flight of stone steps which lead to a wide street. There these long-sworded gentlemen formed themselves into a hollow square, placed the captain, myself, and the interpreter in the center, and in this array, with thousands of the people swarming on every side of us, we were conducted to the palace of the governor.

Our visit was evidently a surprise to this official, but the Japanese are never wanting in politeness and hospitality, and we were very soon placed at our ease. The governor, on taking leave of him, placed several officers of his staff and the police force of the city at our disposal, to conduct us to points of interest during our stay; returned our visit of ceremony the next day, accompanied by a number of his officers; made

us several small presents of the products of the country on our departure, and was in every way courteous and hospitable.

The people, though they swarmed around us in large numbers, at first, so as to impede our progress, were in no way uncivil, only curious. There was not a foreigner of any description or nation in this city, and our appearance, dress, &c., excited much curiosity. Captain Sampson very kindly gave everybody free access to the ship, and they came off by hundreds to visit it, the officers considerably showing them every attention.

Kagorhima is the capital of the province of Satsuma, a province famous in the annals of Japan for its wars, its warriors, its powerful princes, and to the outside world for its porcelain ware (Satsuma ware), known by virtuosos in all parts of the world. The city has been besieged and sacked and burned time and again, in the old wars of the feudal chieftains, the evidences of which can be seen to-day in the battered walls of ruined castles and the blackened columns of fallen temples. More recently, in 1877, the province was the theater of what is known as the Satsuma rebellion, a war against the Imperial Government. This war of rebellion of only a few months' duration was waged with uncommon fierceness on both sides; the slaughter was great, and cost the Imperial Government \$100,000,000 to subdue. General Saigo, of Satsuma, was the leader and hero. He is said to have performed prodigies of valor, and was killed fighting at the head of his last forlorn hope. I stood by his tomb on the hill which overlooks the city close by the mausoleum of the ancient princes of Satsuma. It was covered with flowers. The officer who accompanied me told me that these flowers were renewed every day in the year. On the spot where he fell a temple has been erected. Saigo is already one of the warrior deities of Japan. His brother, also General Saigo, is an officer of the Imperial Government.

Many times the city has been rebuilt, but still bears many scars of war. It is a very large city, regularly laid out in wide streets, at right angles, which once were paved with a sort of asphalt pavement, and are still in good condition. Situated in the extreme southern part of Japan, the climate is warmer than at Nagasaki. The streets are planted in shade trees, and on either side are streams of good running water, brought in bamboo pipes from the adjacent hills, and conveyed through the town in paved conduits. Several canals intersect the city, which are crossed by many fine old bridges, some of them with a curvature of arch sufficient for the passage of the largest size junks. Gardens are numerous and the vegetation luxuriant. The Japanese are very fond of trees and flowers; the former are trained by them into all sorts of quaint forms and queer devices. I saw at a sort of fair, lining each side of the street for several blocks, a splendid exhibition of flowering plants, shrubs, and trees, the choicest of which could be purchased for a few sens. Singing-birds were offered for sale at the fair in great numbers and variety. I bought a famous singer of a strange species, very small, with rich green plumage, together with a large bamboo cage, for 50 sens, about 30 cents of our money. I visited the shops and stores and market places, and in many I was gratified to see American goods, such as clocks, lamps, looking-glasses, glassware, &c., which are in much esteem among the people, and bring good prices. Kerosene oil I observed was in general use. A common looking-glass, set in plain wooden frame a foot square, was held at \$2.50 to \$3, and other American articles at like prices. Native goods are very cheap.

This province cultivates and manufactures a great deal of sugar and

tobacco. The sugar is very rich in saccharine matter, but the manufacturers do not understand the art of refining. The tobacco is very good. It is made into smoking-tobacco, and resembles in appearance the "fine-cut" of the United States. Cotton grows here very well. Many of these things have been introduced of late years. Silk culture is carried on here to some extent. I visited an establishment conducted by the government in which were many Japanese women at work. Their looms and appliances were of the oddest and oldest description; yet they made, I thought, a fine article of silk. The women, the superintendent informed me, receive no wages, but are allowed to work for the privilege of learning the art, and are supplied merely with their mid-day meal of rice and vegetables. Bamboo grows to a very large size in Satsuma, and it is surprising the numbers of things that are made of it, such as houses, fences, tables, chairs, water-pipes, boxes, &c. The root is also used as an article of food, and very palatable it is. I brought away a piece of bamboo made into a neat box, the circumference of which is 36 inches, and I saw groves of it of similar dimensions. It is so abundant and cheap, and renews itself so rapidly, and is made into so many different things, that it is a great boon to these people. It might be introduced into the United States with advantage, and would grow well in the cane-brake land of the Mississippi, Louisiana, and other Southern States. I attended one day a very large theater constructed almost entirely of bamboo, and the tickets of admission were flat pieces of bamboo, for which we paid the sum of three cents each. The interior was arranged very much like the theaters of the United States, with double tiers of boxes, &c., and contained as well-dressed and well-behaved an audience as can be seen anywhere. The play was a story of the war, and the actors were so good, and the interest so great, that at one time the audience was bathed in tears, and at another convulsed with laughter. Histories of Japan speak of these theaters, conducted as they are to-day, back to the very earliest date. The query often comes, "where did these people get these things, secluded as they have been from all the world?" A consular report does not afford the space, nor is it exactly the vehicle through which to convey an idea of the strange sights and scenes of strange old cities. The Prince of Satsuma was not at Kagorhima at the time of my visit, and he resides for the most part at Tokio. When these old Daimois gave up their power, at the formation of the new government, many of them were given, in consideration, large pensions, and their castles and estates were taken over by the government. Some of them not falling in readily with the new order of things went abroad, and now draw their pensions and live away from Japan. The Prince of Satsuma retains, I believe, his palace and grounds, but does not maintain an establishment.

The porcelain ware of Satsuma is of wide repute. Manufactures of this ware were established at Kagorhima at a very early date. Skilled workmen were brought there from Korea, it is written, in 1598, and their descendants, it is said, still exist there, engaged in the same work. I visited several of the works and examined the processes of mixing the clay, the methods of burning it, and the art of decoration, but as I propose making a separate report on porcelain manufactures will add no further particulars on the subject in this report.

The visit of the Swatara to Kagorhima made, I am satisfied, the most favorable impression, created an interest in, and elicited many inquiries as to the United States.

In the afternoon of the 3d of April we bade a reluctant adieu to the city, and steamed out of the bay, having enjoyed the visit very thor-

oughly. The next morning the Swatara was at her old moorings at Nagasaki. I cannot forbear saying in this place that I have never seen, in considerable experience, a man-of-war under better discipline, with more perfect confidence and respect among the officers and men, and with more complete harmony in all things than on board the United States ship Swatara. I shall remember my week's cruise to Kagorhima on board this vessel with unalloyed pleasure.

A. C. JONES,  
*Consul.*

CONSULATE OF THE UNITED STATES,  
*Nagasaki, Japan, April 25, 1881.*

## SUGAR CULTURE IN MANILA, PENANG, AND CHINA.

REPORT BY MR. COMLEY, MINISTER RESIDENT AT HONOLULU, HAWAIIAN ISLANDS

I have the honor of inviting the attention of the Department to the following letter (from the Hawaiian Gazette) from Robert Collard, a Peruvian (English) sugar planter, who has recently visited nearly every sugar-growing country in the world.

This letter, it seems to me, contains information of value to our sugar planters, if it could be brought to their notice, by publication or otherwise.

JAMES M. COMLY,  
*Minister Resident.*

LEGATION OF THE UNITED STATES,  
*Honolulu, July 4, 1881.*

MR. ROBERT COLLARD'S LETTER ON SUGAR CULTURE IN MANILA, PENANG, AND CHINA.

[From the Hawaiian Gazette.]

The following is from a letter of Robert Collard, esq., a civil engineer and sugar planter of large experience in Peru, who traveled extensively through our islands some four months since:

LIVERPOOL, *May 5, 1881.*

MY DEAR MR. J.: \* \* \* I crossed the China Sea in a small Spanish steamer, and within a week after leaving Shanghai found myself in the capital of the Philippine Islands. The first sight I had of these islands was a high mountain range on the island of Luzon, close to the entrance of Manila Bay. Although within one day's journey from the capital, these mountains are inhabited by savages. The bay is very large but the water is shallow. Manila is located at a point where a small river enters the bay. This river is navigable for small steamers, and comes from a most extensive lake (over 40 miles long). The city proper is on one side of the river and the commercial town on the other, the post authorities on one side and the custom-house on the other. The latter is, of course, on the side opposite the commercial quarter; there are strict passport regulations, and the whole tendency of the government is to cause inconvenience and delay.

The European population in this city is very small. There are about 80,000 Chinese, and a still larger number of mestizos. The total population of Manila is said to be about 300,000, and of the whole of the Philippines 6,000,000. I did not stay long in the city, but visited several of the principal sugar districts. This industry is carried on with great activity, the annual export amounting to 160,000 tons. It is all

made on small plantations and in the most primitive manner. The provinces nearest to Manila are especially backward in the art of sugar making. All they know of it seems to have come from China; stone crushing-mills imported from that country are still to be seen at work, although they have given place to iron mills in most places. The greater number of crushing-mills are driven by buffaloes, but small steam-mills are largely employed. A mill having rollers 36 by 18 would be considered rather a large mill in the island of Luzon. A few cast-iron pans constitute the rest of the sugar house. Vacuum pans, centrifugals, and even pumps to elevate the cane juice are not used. The cane juice is of a very good quality and easily worked, but the sugar extracted by these primitive methods is of a most inferior quality.

I saw one place where the juice was being boiled down just as it came from the mill, no attempt being made to skim off the impurities. After the water was evaporated, the sugar while still hot was packed into large grass bags. I believe that occasionally earth or sand is mixed up with the cooked mass to make it weigh heavier.

There are many places in the Philippine Islands where a much better article is made, yet nowhere, except on one plantation on the island of Negros, is any sugar made that could in any way be compared to your Sandwich Island product.

The cane mostly cultivated is the red Java. The maximum yield per acre cannot be put down at much over two tons. One and one-fourth tons is as near as can be stated for an average good crop, and this is from plant cane, for ratoon crops are seldom cultivated. The land is only cultivated on the surface—the plow in common use is a very small one drawn by a single ox or buffalo. Such an appliance can never touch the subsoil. No irrigation is required, the rainfall being abundant. The canes are planted very closely, about 2.6 from center to center of the rows, and the cuttings laid close together near the surface. Planting commences at the same time as the crushing, about December or January, and this is the dry season, the wet season commencing at about May, by which time the crop has to be off. After this I imagine there is very little done to the growing canes; they are never stripped of their dead leaves, and consequently do not get a fair chance to grow. Whenever I questioned any planter about those operations that we consider essential in other countries, the reply was, *mucho trabajo, senor*, "too much work, sir." In short it is a land of small sugar canes and of bamboos of unrivaled growth. Nature is most prodigal in this land—there are no narrow valleys, but a magnificent expanse of level country stretching toward the mountains, intersected by navigable rivers and offering the greatest facilities for the construction of roads or railways. The timber is of excellent quality and large growth. I saw a table cut from a solid plank that was over 6 feet wide and 15 feet long, without a crack or flaw. Then the lofty bamboos that give such a pleasing appearance to the landscape supply the natives with all the material they require in the construction of their houses.

And now for the people. You will expect me to describe them as a very indolent set of fellows. In such a tropical country, of course, no one wants to work more than he can help; yet the native races of these islands have many good points. I was rather pleased with them on the whole; and think that if they had been under Anglo-Saxon rule or influence, instead of Spanish, a great deal more might have been made of them. The progress they have made is perhaps due more to the Chinese element than the Spanish. Chinese have emigrated to these islands for many years back; they intermarry with the native women. The *mestizos* resulting from these marriages seem to retain the best qualities of both races. They are industrious and enterprising, possess all the shrewd business qualities of the father and retain the good physique of the mother. Nearly all of the planters belong to this class, and very few of the pure blooded natives rise above the condition of laborers, while the pure Chinese remain in the towns. Very few Spaniards or other foreigners engage in planting—the former come out as government officials, the latter as traders. Spain has never made the least attempt to develop these islands; but it is only just to say that at the present day she protects the laborer from any abuse or ill-treatment from his employer. There are about 5,000,000 of natives who pay tribute to Spain; but the country is large and labor very scarce in some parts. It would be no use in your looking in this direction to supply your plantations with field hands, for although the men are desirable, the government would oppose any attempt to take laborers out of the country.

While in Swatau, China, I was fortunate enough to get an opportunity to visit the country districts in company with a gentleman who speaks the dialect of that part of China. I went there to see the Chinese method of cultivating the sugar cane, their system of treating the cane juice. Many of the mills were at work, and I also saw every operation relating to tillage of the soil and planting. The Chinese treated me most civilly everywhere, and afforded me every opportunity for observing their work. Now, here we are in the birthplace of sugar making, and probably witnessed the same operations that were carried on centuries ago. A sugar house here is a conical building made of canes and straw; in the center is the crushing-mill, a cumbersome machine consisting of two stone rollers placed vertically in a strong wooden frame;

on the upper parts of the stones mortices are cut, into those of one cylinder wooden teeth are inserted, which work into corresponding cavities in the other cylinder. The axles are of wood, one of them being prolonged above the frame; into this is inserted a long beam to which two oxen are attached. The canes are only partially crushed at the first passing, but they are taken back and repassed between the rollers several times. The cane juice is carried in wooden buckets to the boiling house. This is a small shed attached to the mill house. Here are three small cast-iron pans, about 2 feet 6 inches in diameter, set in a triangular form over the furnace. The latter is a sort of oven with the bottom of the pans coming through the crown; it has no flues or chimney; the same hole through which the fuel is fed also serves as an escape for the smoke, which finds its way out of the building through a hole in the roof.

When the sugar has been cleaned by the use of lime and skimming, it is either run out into shallow wooden trays and stirred up while cooling to prevent the formation of grain, or else it is run into earthenware pots. By the first method they produce a very fine-grained brown sugar, containing all the molasses, but in a form that will not drain; it is, in fact, *concrete* in a powdered form. The sugar run into the earthenware pots is not cooked to so high a point; some of it has a very good grain and makes excellent white sugar when clayed. Outside is a busy scene. The canes are being carried in bundles to the mill house with all the leaves and tops on. At the door are numbers of men, women, and children sitting down among the heaps of cane, cutting off the tops and leaves; these are all made up into separate bundles; the tops are used for seed and the leaves for food for the cattle. The Chinese waste nothing. They use for manure the refuse from the villages, and import large quantities of bean cake.

The land I saw was of poor quality and the canes were small. But near Canton I saw some fields of really fine cane, growing tall and straight. To obtain this they had placed rows of tall stakes at short intervals in the fields to keep the canes from falling—they also earth up. All their fields are kept very clean—no land is wasted or allowed to lie fallow. They alternate crops and use every effort to return to the soil what has been taken from it by each successive crop. Even the richer portion of the soil that is washed away during the rainy season and deposited at the bottom of the water channels is dug out and distributed over the poorer portions of their fields. These people are very poor, but they are most thrifty and do not suffer from want. It was cold weather when I was there, and I especially noticed that all were comfortably clad—even the children of the poorest looked comfortable and healthy.

The condition of the Chinese peasant working on his own little plot of land with his family around him, even the little ones helping to support the family, offers a most pleasing contrast to the life of the Chinese coolie working on the foreign plantations. These men are just as fond of home and children as we are, and will work honestly for their support; but once you sever a poor and ignorant man from all domestic ties you take from him every chance of developing his better qualities, life becomes a drudgery, and he breaks the monotony by seeking the excitement of the gaming table or the dreams of the opium smoker.

On my way home I touched at Saigon, Singapore, and Penang. At the latter place I stayed a few days to visit the sugar plantations in province Wellesley. This is a British colony and is being worked with care, but the soil is not good, being mangrove swamps and reclaimed from the sea. All the cultivation has to be done by hand, and a greater number of field hands employed to produce a given amount of sugar than in any country I know of. The canes look very well and are well cared for, but they are not so thick as I like to see. About two tons of sugar per acre may be considered the average yield. The only new process I saw was their system of clarification.

A quantity of clay is mixed with the lime and stirred up in the clarifier; no scum is taken off, but the juice boiled up for a few minutes in order to mix up the impurities with the clay and lime. It is kept boiling while being drawn off, when in a short time all the impurities settle to the bottom; the clay being heavy carries down the light stuff, the clear liquor is then decanted off, and the water evaporated without any skimming. The juice has the appearance of being well clarified. In a clarifier of 350 gallons I saw 3 pounds of lime and 12 pounds of clay used as temper; the clay was ground up fine and mixed into a soft paste without grit. All these plantations use the vacuum pans and produce a very high class sugar; but these canes give a very much larger proportion of molasses than yours do. The labor for these plantations comes from two sources—the native Malay and the imported coolie from Southern India. There are also a few Chinese, but they mostly work on their own account and soon intermix with the natives of the country.

I do not think that either the Hindoo or the Malay is as good a laborer as the Chinaman, and I gather from inquiry among the people from India that the Hindoos are altogether averse to emigration, and although the British Government still looks after them and gives them ample protection wherever they go, still they require much enticing before they can be induced to leave their native land.

This labor question is always beset with difficulties. No matter from what country

you import your men, so long as you want *hands only* you will get the scum of the population, fellows very low down in the social scale of their own people, men long addicted to idleness. There are always bad cases to deal with, bad children to educate, but it must be done. If your planters want really good servants, they must educate them up to their standard. If you would have faithful men, remove as much as possible the brutalizing influences and try to make *men* of these fellows. I know that this may not be the best way to get the biggest crop off next year; but you are not working for next year alone, but for the future of Hawaii. Are there not children growing up about you? Do not be satisfied with any temporary remedy, as the bringing of a lot of men from China; try by every possible means to induce families of working people to settle on your estates. Make them feel they have a *home*. This may require time and patience, but for the man who has a large estate in the future it will *pay*. We are all responsible for higher and more serious things than the amount of sugar per acre, and our duty to our hands is not finished by the payment of their wages. Of course I know that the man who starts a plantation for the purpose of improving the morals of the Chinese will soon become bankrupt, and I hold that the first lesson in morality is to teach a laborer to do an honest day's work; but much can be accomplished by not treating a man as a mere machine and driving him all we can, and by trying to counterbalance the brutalizing tendencies of plantation life. It should lie on every man's conscience to do all he can for the men in his employ.

Yours very truly,

ROBERT COLLARD.

## THE TANNIC QUALITIES OF THE SHELL OF THE MANGOSTEEN.

*A REPORT BY CONSUL STUDER, OF SINGAPORE, STRAITS SETTLEMENTS.*

For the benefit of such among our public as are engaged in the manufacture of leather, and who may take an interest in what I am about to state, I have the honor to inform the Department that in the local paper, the Daily Times, of the 3d instant, appeared a very interesting as well as important article (taken from a Java paper), of which the following is a true copy:

### MANGOSTEEN SHELLS.

Mr. G. Naeff, at Lochun, has made a comparative examination of mangosteen shells and oak bark to determine the value of the former as tanning material in leather making. It appeared therefrom that the mangosteen shells contain one-sixth more tannin than oak bark, and that the value of the former may, therefore, be set at about 7½ guilders per 100 kilograms.

I think it was well that this comparison between mangosteen shells and oak bark was made. I regard this new discovery as very important, in view of the fact that many of our valuable "hard-wood forests" in the Eastern and Middle and, in a great measure, our Western States, have either entirely disappeared or become denuded of oak trees, and this, too, near or around leather-manufacturing districts. True, many substitutes for oak bark, such as hemlock, gambier, and other materials, have been resorted to, but none of these, I believe, are able to take the place of oak bark, and "oak-tanned leather" still commands the highest price in the market. I do not know the present prices of oak bark in the United States—whether 100 kilograms in a broken state ready to be ground, and bought where grown, would be dear at 7½ guilders (\$3); but if the price of it should be the same as of mangosteen shells bought out here for the same price, the prices of both the same there and here—the mangosteen shells having one-sixth more tannic properties would be more valuable—the difference would more than pay for the freight, besides proving a valuable article of freight for our ships, being easily

shipped, and, owing to the hardness of the shell, not liable to spoil or to suffer from sea-water, except after long submersion.

That mangosteen shells contain much tannin and are a very strong astringent I knew long ago. The Malays when they want to check bowel complaints of serious character grate or cut fine the shells, make tea of the same, and use it with good results. This is well known here. About ten years ago an eminent Austrian naturalist and physician, sent by his government to the Indo-Malayan Archipelago on a scientific tour of exploration, had his attention drawn to the shell of the mangosteen fruit as a powerful astringent, and its common use among the natives as an antidote against the diseases mentioned. It would seem that after his return to Vienna the imperial family read his report, and noted the medical value of the mangosteen shell, for about six years ago, when cases of Asiatic cholera had occurred in Austria, the Austrian consul here, who was then my near neighbor, was written to by request of Her Majesty the Empress to cause a quantity of mangosteen shells to be procured, and to ship them with dispatch to Vienna, where it was believed they would answer for checking cholera, in case the latter should make progress.

To order mangosteen shells from here for the cure of cholera was a mistake; for no one *here* ever heard that they had been used for that purpose. Still, as a remedy for dysentery, if taken immediately on being attacked, the astringent is very effective.

The mangosteen is beyond any doubt the choicest, most refreshing, and wholesome fruit in this part of the world, and is found throughout the whole Indo-Malayan Archipelago, and in New Guinea, say between the twelfth degrees north and south latitudes. Strange to say, it does not thrive well, if at all, in other tropical countries within the same degrees of latitude. In Siam and in French Cochin China there are large orchards of it; also on the Malayan peninsula, wherever human habitations are found. It is equally at home, and plenty, on the large and small Sunda Islands, in the Moluccas, and a naturalist told me that he found them growing plentifully in the forests of New Guinea. On the peninsula of Malacca, in Sumatra, and Borneo, large groves of them in a wild state can be found, generally near the banks of rivers and creeks. My opinion is that they were originally planted by Malays who lived there, and abandoned their settlements owing to internecine wars, or to change lands. The Malays are more or less of a nomadic disposition. Their abandoned orchards, indigenous as the mangosteen tree is, took care of themselves like other forest fruit trees, and the seeds of the fruits, dropped here and there by birds and monkeys, rooted easily.

The wild mangosteen fruit is just as good as the cultivated, only a little smaller. My experience is that the trees yield fruit, generally very abundantly, about three times in two years, or, to be very safe, four times in three years.

In seasons when rain squalls and fine weather alternate regularly, with a slight preponderance for rain, they bear best. The tree, in ground and atmosphere, likes much moisture. If the natives, throughout the mangosteen-producing countries and islands named, should once become aware that they can sell the shell of the fruit, or that it had become an article of export, there would be no great difficulty in securing immense quantities of the same, and, the trade once inaugurated, it is my opinion they might be had for less than \$300 per 100 kilos. The average size of the fruit is about the same as medium-sized apple, while the average thickness of a shell is about one-third of an inch. The fact is, there is

“more shell than fruit.” I firmly believe that the said shells would make first-class “tanning material,” that they are well worth a trial in our tanneries, and it is my opinion they might prove a valuable dye-stuff as well.

A. J. STUDER,  
*Consul.*

CONSULATE OF THE UNITED STATES,  
*Singapore, June 14, 1881.*

## A U S T R A L A S I A .

### THE REVIVAL OF TRADE IN NEW ZEALAND.

*REPORT BY CONSUL GRIFFIN, OF AUCKLAND.*

The government accounts and returns for the year ending March 31, 1881, show a debit balance of £5,667. The receipts for the year from all sources of revenue, including deficiency bills, were £3,168,183. This statement evidently shows a healthful condition of affairs, notwithstanding the vast public debt of the colony. The annual appropriations amounted to £1,624,961, and this compared with the revenue proper, viz, that derived from taxation, £1,761,141, leaves a margin in favor of revenue of £91,180, about the amount of the deficiency bills, and the small unfavorable result on the total revenue, £5,667, arises from the adverse influence of the special appropriation approaching too nearly one-half of the total expenditure.

In former communications to the Department of State I have dwelt at length upon the public debt of New Zealand, and have shown that it was incurred principally for the construction of public works. The more I study the financial condition of the colony the more I am convinced that the people contracted this debt with their eyes open and felt the utmost confidence in their ability to pay it.

It is certain that there is a very general revival of trade throughout the colony and especially with the United States.

### THE POST-OFFICE SAVINGS BANK.

One evidence of the prosperity of the people may be gathered from the official reports of the condition of the Post-Office Savings Bank. This bank was established by the government principally for the benefit of the working classes. During the quarter ending the 31st of March, 1881, the amount of deposits was £281,840 6s. 4d. against £197,911 2s. 8d. for the corresponding quarter of 1880. The excess of deposits over the withdrawals amounted to no less than £70,892 7s. 7d., or at the rate of nearly £300,000 per annum. In the returns there are sixteen postal districts, and in each of these save two the balance was largely in favor of deposits, being in excess of the withdrawals during the quarter. These sums are certainly large to come from the laboring classes. In truth all the banks of New Zealand appear to be in a flourishing condition. Their prosperity may be best illustrated by a statement of the affairs of the chief bank of the colony, viz, the Bank of New Zealand. The half-yearly meeting of the shareholders of this bank was held on Thursday, April 21, 1881, in the chief office, Queen street, Auckland.

The general manager (Mr. D. L. Murdoch) read the notice convening the meeting and the minutes of the previous general meeting, also the report and the balance-sheet, as follows:

*The thirty-ninth report of the directors of the Bank of New Zealand to the half-yearly general meeting of the proprietors, held at the banking house, Auckland, on Thursday, April 21, 1881.*

The directors have pleasure in submitting to shareholders the following report and balance-sheet for the half year ended March 31:

The net profit at that date, after ample appopriation for all known bad or doubtful debts, and in reduction of bank premises and furniture accounts, amounts to .....	£76,464	9	6
To which has to be added—			
Balance from half year ended September 30, 1880.....	23,337	6	9
Giving a total, available for division, of.....	99,801	16	3
<hr/>			
• The following appropriation of which is now recommended:			
To payment of dividend at the rate of 10 per cent. per annum.....	£50,000	0	0
To bonus of 5s per share, equal to 5 per cent. per annum.....	25,000	0	0
To balance carried to profit and loss new account .....	24,801	16	3
	99,801	16	3

The dividend and bonus will be payable at head office, Auckland, to-morrow (Friday). 22d instant, and at branches on receipt of advice.

For the board of directors:

JAMES WILLIAMSON,  
Chairman.

*Aggregate balance-sheet of the Bank of New Zealand at the 31st March, 1881, including London office at January 31, 1881.*

#### LIABILITIES.

Dr	£	s.	d.
Capital .....	1,000,000	0	0
Reserve fund.....	555,000	0	0
Notes in circulation .....	473,233	0	0
Bills payable in circulation.....	1,875,014	16	11
Deposits and other liabilities .....	7,992,405	10	1
Balance of profit and loss.....	99,801	16	3
	11,995,455	3	3

#### ASSETS.

Cr.	£	s.	d.
Coin and cash balances at bankers .....	1,732,833	13	0
Money on short call in London .....	675,900	0	0
Bullion on hand and in transitu.....	230,083	15	9
Government securities .....	246,513	15	0
Bills received and securities in London.....	2,088,615	15	1
Bills discounted, and other debts due to the bank.....	6,796,416	19	5
Landed property, bank premises, &c .....	225,091	5	0
	11,995,455	3	3

#### PROFIT AND LOSS ACCOUNT.

Dr.	£	s.	d.
To dividend on 100,000 shares, of £10 each, at rate of 10 per cent. per annum.....	50,000	0	0
To bonus at rate of 5s. per share, equal to 5 per cent. per annum...	25,000	0	0
To balance carried to profit and loss new account.....	24,801	16	3
	99,801	16	3

<i>Cr.</i>	£	s.	d.
By balance from half year ended 30th September, 1880.....	23,337	6	9
By net profit for half year ended 31st March, 1881.....	76,464	9	6
	<hr/>		
	99,801	16	3
	<hr/>		

## RESERVE FUND.

<i>Dr.</i>	£	s.	d.
To balance .....	555,000	0	0
	<hr/>		
	555,000	0	0
By balance from half year ended 30th September, 1880.....	555,000	0	0
	<hr/>		
	555,000	0	0

We hereby certify that we have examined the accounts of the Bank of New Zealand for the half-year ended March 31, 1881, and that we have counted the cash balances and examined the bills and other securities held at the head office, and compared the returns of the branches with the statements in the foregoing balance-sheet, and have found the same to be correct.

ALLEN K. TAYLOR,  
G. B. OWEN,  
*Auditors.*

The chairman, in moving the adoption of the report, said—

It will be observed that our resources remain abundantly ample for every contingency, and, while not disposed to encourage or foster speculative business, we are fully prepared to take advantage of any opportunity largely to increase legitimate transactions. It will not be expected, with so large an amount of the bank's resources invested in securities affording a narrow margin of profit, that the result of the past half-year's operations can show any material increase, but our profits have been more than maintained, and that under the heavy taxation of the past year, towards which this bank has contributed nearly £17,000. I am glad, however, to congratulate shareholders on our ability to maintain our usual dividend, and to carry forward such an amount as practically insures a continuance of a like return for next half-year. I will only add one more word of congratulation to shareholders on the improved and improving condition of the colony. Public finance appears now to have attained a stable and healthy condition, and, with continued prudence, we may reasonably hope to see the credit of New Zealand second to none of the Australasian colonies. Trade is gradually but surely progressing, population fast increasing, settlement (both north and south) rapidly extending, and we have been favored with a most bountiful season, in both pastoral and agricultural pursuits. With these few remarks, I beg to move the adoption of the report and balance sheet as read.

## THE EXPORT OF WOOL.

The newspaper press of New Zealand, and indeed of all the Australasian colonies, continue to discuss the advantages that would accrue to them and to the United States if the government of the latter would so modify the duties charged on wool as to enable them to export this product to America. They complain that it is unjust to compel them to find a market in London and other parts of Europe for their raw products and send their gold to the United States for her manufactures. The annual production of wool in the Australasian colonies is about 300,000,000 pounds. The value of this, at the rate of 20 cents per pound would be \$60,000,000. It appears to me that the duty could be so modified as to admit of direct shipment from here of the classes of wool most in demand in the United States. Mr. James C. Gavin, secretary to the colonial treasury, has furnished me with a statement of the quantity and value of the exports of the raw products of New Zealand for the year ending 31st of March, 1881, and from it I learn that the total exports of wool amounted to 63,171,939 pounds, and that the value was \$15,637,770. These figures are certainly large. It is well enough to mention here

that during the year 1880 the number of sheep produced in the Australasian colonies was 65,915,765, of which New Zealand produced 13,069,338.

The promise of the Secretary of the Treasury at Washington, D. C., to place the subject of the reduction of the duty charged upon the imports of New Zealand wool into the United States, at the proper time, before the Committee of Ways and Means of the House of Representatives, is received here with very general satisfaction.

The people of New Zealand find that they cannot get along without many articles of American manufacture, such as agricultural implements, machinery, hardware, edge tools, iron safes, sewing machines, musical instruments, watches, clocks, canned goods, printers' ink, glass ware, wood ware, cotton goods, &c. Indeed, I do not know of a more popular subject throughout the colony, or one that is more generally discussed, than the enlargement of the trade between the United States and New Zealand.

The extent with which American newspapers are circulated in New Zealand is extraordinary. There is scarcely a news office in Auckland, in Christ-church, in Wellington, in Invercargill, in Duneden, and other places, that is not well supplied with the leading magazines and periodicals and newspapers of the United States. The American commercial travelers and agents also keep the merchants of New Zealand keenly alive to the progress the United States is making in the development of her manufactures.

#### BANKING AND EXCHANGE.

Besides the duty charged upon the imports of New Zealand wools into the United States, there is another difficulty in the way of the enlargement of the trade between the two countries. I refer to the present medium of banking or exchange with the United States. The truth is, New Zealand has no direct exchange with the United States. The greater part of the exchange between the two countries is done by way of London. It is done in several ways. For instance, if a merchant in New Zealand wishes to import goods from an American port, he frequently pays a small commission to his banker to establish a credit in favor of his agent in New York or San Francisco. By this is meant that the colonial bank instructs its correspondent in New York or San Francisco to buy the drafts of the American merchant on his friends in the colony up to a specified amount. Such drafts are to be accompanied by shipping documents, which really constitute the title or ownership to the goods on their arrival in the colony. These drafts are bought by the American banker on the faith of the credit issued by the New Zealand banker at the current rate of exchange in London, and then sent to the branch of the colonial bank in the latter city, by which they are negotiated at the rate of exchange on the colony current at the time. This is probably the most ordinary mode of finance to pay for the importation of American goods into New Zealand. Another method is the remittance by the colonial merchant of drafts on his banker or agents in London, which are readily negotiable in the United States not unfrequently at a small premium. The actual barter of goods is very small. By this I mean that it is not a common practice for the American merchant to ship goods to Auckland or other ports of New Zealand, and to receive the proceeds in kauri gum, or other products of the colony. When an American merchant wishes to buy New Zealand products he generally sends a credit by which his agent here is authorized to draw on a London banker, at 60, 90, or 120 days after sight, for the cost of

New Zealand products, with the usual charges added. Kauri gum is generally bought in this way.

If you wish to sell a draft on a person residing in the United States, the banks here will not purchase it at a lower rate of exchange than 5 per cent. If they profess to purchase it at a less rate, they calculate the value of a pound sterling at \$4.80 instead of \$4.86.6½, the standard value proclaimed by the Treasury Department at Washington.

#### FROZEN MEAT.

It is expected that a very large trade will be done during the present year in the export of frozen meat to England. A company has been formed at Otago, South Island, for the shipment of meat to London. It is probable that the Bell Coleman process of freezing will be the one to be used. I suppose it is safe to accept the statement that the export of dead meat from Australia has been fairly successful. It is claimed, however, that meat frozen by artificial process is not as healthful as that frozen by nature. Meat frozen by art, when thawed, is of a dark color, and does not at all present a very inviting appearance. If, however, there is no other objection to this kind of meat than the color of it, the prejudice against it will doubtless be soon overcome.

#### THE CUSTOMS RETURNS.

The customs returns for the quarter ending the 31st of March last, at the various ports of the colony of New Zealand, amounted to £346,272, against £294,786 for the corresponding quarter of the year 1880, thus showing an increase of £51,486, an increase at the rate of £205,944 per annum. The duty collected on spirits increased from £82,482, in the March quarter, 1880, to £91,185 last quarter. Tobacco increased from £30,059 to £45,852; cigars and snuff, from £4,263 to £5,830; tea, from £6,857 to £14,691; sugar and molasses from £16,869 to £20,248.

G. W. GRIFFIN,  
*Consul.*

U. S. CONSULATE AT AUCKLAND, N. Z., *June 20, 1881.*

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### PUBLIC LANDS AND PRODUCTS OF NEW ZEALAND.

#### REPORT BY CONSUL GRIFFIN, OF AUCKLAND.

The money market of New Zealand is nothing like as stringent as it was last year. Indeed, the time of trial is past; every one seems to have profited by the economical and statesmanlike policy of the present government. It not only inaugurated reforms, but had the courage to carry them out. Much can be said of the energy and the prudence of the New Zealand merchants. There have been very few failures, and none at all of any magnitude. In truth, the people are entering upon a period of renewed prosperity. The harvests everywhere have been abundant. The grain crop for this year is larger than has ever been gathered in the history of New Zealand; there is a very general revival of trade throughout the colony, and there is every reason to believe that it will be kept up for some time to come; just now the colony is attracting attention in various parts of the world. Of course it does not

offer the same inducements to European immigrants as the United States. It is well known in Europe that the government of the latter country will grant 80 acres of land within 20 miles of railway and 160 beyond that limit to any one who lives for five years on the land. Moreover, land is much cheaper in the United States than in New Zealand. In Texas splendid estates can be purchased for 50 cents per acre, while the highest price of new lands in other parts of America do not exceed \$1.25 per acre. Last year the lowest price at which crown lands in New Zealand could be purchased was \$4.86 per acre.

A recent act of Parliament, however, has changed the price of lands, and certain tracts can be bought at as low a figure as \$1.25 per acre. Crown lands are divided into three classes.

1. Town and village lands, being the sites heretofore reserved or which shall hereafter be reserved for towns and villages.

2. Suburban land, being land in the vicinity of any town land.

3. Rural lands, being lands not reserved for towns or villages or other purposes.

The minimum upset price of town land is \$145.99 per acre or \$34.49 per quarter acre section. Suburban lands as the name implies are the areas in the immediate vicinity of town lands. They are surveyed into sections of two or three up to ten or fifteen acres and the minimum upset price is (\$14.59) per acre.

Village lands, if surveyed into sections under one acre each, are offered on application at not less than £5 (\$24.33) per section, or if situated in an inland district not opened up by railway, the governor may declare such a special district, in which case the price may be \$12.16 per section. They only go to auction in the event of two or more persons applying on the same day for the same section, in which case the auction is confined to the persons who have applied.

But if village lands are surveyed into sections of a greater area than one acre each, but not more than fifty acres, they are designated "small farm allotments," and in case of more than one application for the same section its occupancy is determined by lot. The price of small farm allotments is not less than \$4.86 per acre or in a special district \$2.43 per acre.

Small farm allotments may also be had on lease with or without a purchasing clause. Rural lands comprise all other crown lands, whether agricultural, pastoral, or forest. They are divided according to quality into first-class, second-class, and third-class lands. The upset price of rural lands are, first-class, \$3.64, second-class, \$2.43, third class, \$1.21 per acre. Rural lands of the third class are of very indifferent quality.

Besides the difference in the price of land in the United States and New Zealand, I may mention that the United States is much nearer Europe than New Zealand. Three thousand miles of ocean are not nearly so formidable as fifteen thousand miles.

The ready markets which the American agriculturists find by means of railroads and the frequency of large centers of population must not be looked for in New Zealand, or indeed in any other part of the world, but while New Zealand cannot of course compare with the United States in these and many other important things, she does not labor under the disadvantages of her sister colonies. For instance, she is free from the severity of the Canadian winters and the Australian droughts, to say nothing of the perils attending a settlement in the British possessions of south of Africa.

The thirteen degrees of latitude through which the islands of New Zealand stretch will grow almost every variety of produce. There is no

other country in the world where the yield of wheat to the acre is so great as that of this colony. The government statistics show that the average yield of wheat is 31 bushels per acre, while the average yield of the other colonies of Australia is about 12 bushels to the acre; and it is no exaggeration to say that no other country produces better cattle and sheep than New Zealand.

No objection whatever can be raised against the healthiness of the climate. Indeed the death-rate is only 12 and a fraction to the 1,000, while that of Britain is 22. On the other hand the birth-rate is 115 to the thousand against 36 in the old country.

The New Zealand fruits compare favorably with those of England and the United States. No other of the Australasian colonies can produce such pears, peaches, and apples, or such strawberries, oranges, citrons, and lemons.

New Zealand not only exports wool but wheat, flour, bread, butter, cattle, preserved meats, gold, tallow, sperm oil, and kauri gum, and many other things besides.

A colony with a population of less than half a million whites and natives, all told, that exports annually \$15,423,715.38 worth of wool, and wheat to the amount of \$4,660,380.40, and tallow \$713,141.85, and \$715,390.20 of kauri gum, to say nothing of the richness of its gold-fields, and other mineral resources, might well attract the attention of other parts of the world.

G. W. GRIFFIN,  
*Consul.*

UNITED STATES CONSULATE,  
*Auckland, March 1, 1881.*

## CONTINENT OF EUROPE.

### AMERICAN CANNED MEATS IN EUROPE.

REPORT BY CONSUL MASON, OF BASLE, SWITZERLAND.

Attention has been invited in various dispatches from this consulate during the past six months to the methods by which certain interested persons persistently seek to discredit the canned meats, soups, &c., which have become such an important article of export from the United States to European countries. The extent and value of this traffic can be readily understood from the statement that a single firm in Chicago sends to Europe annually more than \$5,000,000 of canned meats. These goods include mainly canned beef, tongues, meat, soups, and minced ham, all of which are thoroughly cooked and prepared for immediate use. Their superiority over all other conserved meats of similar kinds is so well recognized that they are rapidly driving all other canned meats out of competition. Naturally, therefore, they have awakened an enmity among the local European butchers, sausage makers, and meat dealers, which exceeds in vigor even the hostility of the same class of persons toward American pork.

Since the vigorous and effective action of the United States Government in vindicating the purity and excellence of American pork, the attack upon canned meats has been renewed with new and desperate

energy. It is understood here that whereas the export trade in hams, bacon, and lard is a traffic of national proportions and interest, and therefore readily susceptible of governmental investigation and defense, the trade in conserved meats is a specialty in the hands of a few individual firms, and may therefore be attacked with impunity.

The methods by which this warfare is conducted and the extraordinary lengths to which it is now being pushed, may be partly illustrated by a speech recently made by Alderman Ruloff in the sanitary council of Berlin, and reported at length in the *Fleischer Zeitung* of June 8. The *Fleischer Zeitung*, it should be understood, is the organ of the butchers' profession and interest for the whole of central Europe. It circulates among butchers and meat dealers of all classes throughout Germany, Austria, and Switzerland, and extracts from its vindictive and reckless diatribes against American meats are constantly found copied approvingly in the daily journals of all these countries. To such a journal the official tirade of Councilman Ruloff was naturally a most important utterance, and it was published with great prominence, as follows:

#### AMERICAN PRESERVED MEATS.

In the last session of the "German society for protection to the public health," Mr. Alderman Roloff gave an interesting discourse on the above subject. Basing his statements upon thorough examinations and elaborate experience, he explained the serious dangers that may result from eating animal food; the readiness with which the diseases of animals can be communicated to persons, and the absolute necessity of rigidly discarding the flesh of diseased animals as human food. "In America," said he "*not the slightest inspection of animals takes place or can ever be effectively established.*" *Even the meat itself is not examined*, and except in rare cases it is therefore impossible to prove instances in which meat has actually been made from diseased animals. In our own country, on the contrary, the system of governmental control and inspection being so perfect, the danger of encountering diseased meats is reduced to a minimum.

\* \* \* The danger consists not only in trichinæ, but from the numerous diseases which prevail among American cattle, and which are even still more dangerous to human health. Besides splenitis and erysipelas, there exists there another disease, the so-called "*hoof distemper*," which is so fatal that in the State of Illinois alone there died from it in one year 1,000,000 swine, and it may be asserted with entire certainty that the flesh of these animals was converted into canned meats!

Among American cattle malignant epidemic maladies are not less prevalent, and especially so is the so-called "Texas fever," a disease akin to rinderpest, which is a universal scourge. *And since beef cattle have a higher value than hogs, this disease can lie latent in them longer than in swine. So also there can be no doubt that the flesh of these animals becomes "corned beef."* Moreover, Chemist Meier has discovered in a box of corned beef 99 milligrams of lead.

During the transportation of cattle from the States of Texas, Kansas, and Colorado to Chicago, where the conserved meats are chiefly prepared, a distance of about 1,500 miles, they are inevitably exposed to various contagious diseases, so that it is undoubtedly true that a large proportion of the cattle whose flesh is converted into "corned beef" are infected with malignant diseases.

All this must be true since it is asserted by even the American press, which further assures us that horseflesh is also used for the same purpose. But since the virulent contagious matter is not destroyed by the process of preparing canned meats, the question appeals to us, Are we obliged to use this corned beef, and is its consumption really a measure of economy? The answer is inevitably, No, since recorded facts prove that in several cases persons having eaten these conserved meats were made ill thereby, and, moreover, because a can containing 2 pounds of meat, and which costs 43 cents, is much more expensive than the same quantity of equally good native meat.

The form of these meats has, however, so many advantages that it is highly desirable to establish here the same industry, which shall provide for public consumption meats not only cheap, but securely wholesome and pure.

This is no mere accidental statement, made by an irresponsible person and incidentally printed among the news of the day, but the deliberate utterance of a recognized official, made in presence of the highest public sanitary tribunal of the German capital, and conspicuously published by the leading organ of the butchers' interest in Europe. It puts

an effective official weapon into the hands of every butcher or local meat dealer whose interests or prejudices impel him to join in the crusade against American conserved meats.

It is hardly necessary in this connection to point out the grossly ignorant and mendacious character of this remarkable utterance. The important fact, which closely concerns the entire canned-meat exporting interest in the United States, is that such statements are publicly made, published, and circulated almost uncontradicted, as a means of destroying confidence in American meats, and ruining the market for them. From the nature of the case, every package of conserved meat is in some sense a mystery. Its purity can be practically proven only by the test of eating. As an experiment merely, this process is not inviting and can never become popular. The successful introduction of conserved meats as a standard article of food depends upon the faith of the public in the integrity of the persons by whom such meats are prepared.

It is of the first importance to the tinned-meat exporters of the United States that they should unite in meeting misrepresentations like that quoted above, with clear and authentic statements, describing the methods by which cattle are brought to Saint Louis, Chicago, and other meat-conserving centers; how they are inspected, slaughtered, and their flesh cooked and canned. The precautions by which the danger of lead poisoning is now entirely obviated should also be fully described. The simple facts are sufficient, and will be effective, if they can be authoritatively stated and thoroughly published.

Dealers who offer American conserved meats for sale in Europe should be armed with facts to meet their detractors, and the public here should be taught that the reports of wholesale exportations of the meat of diseased animals are as baseless as the now exploded trichina panic of four months ago, and are inspired by the same motives.

FRANK H. MASON,  
*Consul.*

UNITED STATES CONSULATE,  
*Basle, June 22, 1881.*

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### THE AUSTRIAN PUBLIC DEBT.

REPORT BY MR. DELAPLAINE, SECRETARY OF LEGATION AT VIENNA.

I beg to present certain data extracted from the statements published yesterday, showing the condition of the public debt of Austria at the end of December, 1880. The general public debt amounted to 2,755,127,590 florins 3 kreuzers, with an annually accruing interest of 113,732,817 florins 63 kreuzers.

The debt of Austria proper (Cisleithania) reached the sum of 408,616,425 florins 80 kreuzers, the annual interest payable thereon being 16,442,049 florins 23 kreuzers. The total amount of these two debts is 3,164,444,015 florins 83 kreuzers, and that of the annual interest thereon 30,174,866 florins 86 kreuzers.

The obligations payable by the several respective provinces, but *guaranteed* by Austria, which were issued since 1848 for the liberation of the soil from feudal services, tithes, &c., represent a capital sum of 170,155,482 florins, requiring an annual interest payment of 8,434,496 florins 70 kreuzers. In comparison with the end of December, 1879, the general

debt has diminished 7,643,813 florins, while the Cisleithanian debt has been augmented by 16,243,843 florins 62 kreuzers.

The common floating indebtedness, consisting in state notes of the denominations of one, five, and fifty florins, which circulate as money, attained the sum of 327,737,769 florins.

In view of the contingency that further and more precise information shall be desired, I herewith inclose the printed statements (in duplicate) before referred to.

J. F. DELAPLAINE.

UNITED STATES LEGATION,  
Vienna, May 20, 1881.

## THE HUNGARIAN LOAN.

REPORT BY CONSUL-GENERAL WEAVER, VIENNA.

The result of the Hungarian loan of 160,000,000 florins to convert the 6 per cent. gold rentes into 4 per cent. gold rentes, as submitted for subscription on the 19th instant by the Rothschild consortium or syndicate, was so extraordinary that the following particulars may be of sufficient interest to warrant their transmission.

The 6 per cent. gold rentes had been issued to the amount of 367,000,000 florins, as follows: In 1876, 40,000,000, at the rate of 91.1 per cent. in paper; 40,000,000 in 1877, at the same rate; 146,700,000 in 1878, at 84.57 per cent. in paper; 148,300,000 in 1879, at 83.86 in paper; and, finally, 2,590,000 in 1879, at the rate of 88.21 per cent. in paper, making an average issue price of 85.73 florins per 100 florins of the rentes, at which price the purchasers realized 7 per cent. in gold, or, adding the premium of about 1.15 florins, an actual rate of about 8.15 per cent. in paper, on the purchase or issue price. The result of such large annual interest caused these rentes immediately to appreciate, so that now they are quoted at 117.60 in paper, equivalent to about 1 per cent. above par, gold ranging at about 116½.

As the conversion loan was negotiated by foreign bankers, and foreign subscriptions were depended upon to float it, the rentes are made out in English currency, payable in gold at 4 per cent. The original 6 per cents were irredeemable, but the government had the option of converting them at lower rates; consequently the issue price was put at £75½ per £100 nominal. By adding the gold premium to the exchange value of the florin, the gold rentes cost on this market 89.05 florins in paper, on which amount accrues annually an interest of 4.72 per cent.

At this rate it was clearly foreseen that great demand would be made for the rentes, and the whole amount is now declared to be subscribed for *over twenty-fold*, among which are stated the following amounts, viz, in Vienna and Pesth, 530,000,000; in Germany, 812,000,000; in England, 1,000,000,000; in Paris, 1,600,000,000 or 1,700,000,000 florins.

The 160,000,000 florins loan was only a trial, from the success attending which doubtless the entire loan will be now converted, as in such a transaction the Hungarian Government saves annually about 2,000,000 florins in interest.

JAMES RILEY WEAVER,  
Consul-General.

UNITED STATES CONSULATE-GENERAL,  
Vienna, Austria, May 21, 1881.

CENSUS OF THE AUSTRIAN EMPIRE, FOR 1880.

REPORT BY CONSUL-GENERAL WEAVER, VIENNA.

Certain data of the total population of the Austrian Empire, or Cis leithania, as obtained from the census of December 31, 1880, is now published, from which I abstract the following items. The population of the different kingdoms and countries forming the empire, compared with that of 1869 and 1857, are as follows :

Provinces.	1880.	1869.	Annual geometri- cal increase be- tween	
			1869 and 1880.	1857 and 1869.
Lower Austria.....	2, 329, 021	1, 990, 708	1. 44	1. 42
Upper Austria.....	760, 879	736, 557	0. 30	0. 34
Saltzburg.....	163, 566	153, 159	0. 60	0. 36
Styri.....	1, 212, 367	1, 137, 990	0. 58	0. 62
Carinthia.....	348, 670	337, 694	0. 29	0. 13
Carniola.....	481, 176	466, 334	0. 29	0. 26
Triest and Territory.....	144, 437	127, 547	1. 13	1. 66
Goritz and Gradiska.....	210, 241	206, 244	0. 18	0. 87
Istria.....	295, 854	266, 734	0. 97	1. 23
Tyrol.....	805, 326	782, 753	0. 26	0. 36
Voralberg.....	107, 364	103, 036	0. 38	0. 17
Bohemia.....	5, 557, 134	5, 140, 544	0. 71	0. 74
Moravia.....	2, 151, 619	2, 017, 274	0. 59	0. 65
Silesia.....	565, 772	513, 352	0. 79	1. 22
Galicia.....	5, 953, 170	5, 444, 689	0. 82	1. 42
Bukowina.....	569, 599	513, 404	0. 95	0. 98
Dalmatia.....	474, 489	458, 611	0. 27	1. 05
Totals.....	22, 130, 684	20, 396, 630	0. 74	0. 94

Divided according to sex the population of Austria was as follows :

	Males.	Females.	Excess.
In 1880.....	10, 814, 030	11, 316, 654	502, 624
In 1869.....	9, 993, 167	10, 403, 463	410, 296
Increase.....	820, 863	913, 191	192, 328

The total population of the Austro-Hungarian Empire, omitting Bos-  
nia and Herzegovina, was therefore on the 31st day of December, 1880,  
compared with 1869, as follows :

Countries.	1880.	1869.
Austria, or Cistleithania.....	22, 130, 684	20, 396, 630
Hungary, or Transleithania.....	15, 610, 729	15, 416, 321
Totals.....	37, 741, 413	35, 812, 951

The density of population for the Empire of Austro-Hungary for 1880 and 1869 given for each kingdom, province, or country, and in German square miles (equal to about 22 English miles), is as follows :

Country or province.	1880.	1869.
Lower Austria .....	6, 469	5, 428
Silesia .....	6, 052	5, 473
Bohemia .....	5, 889	5, 411
Moravia.....	5, 329	4, 949
Galicia .....	4, 176	3, 801
Goritz and Gradiska.....	3, 919	3, 805
Upper Austria.....	3, 492	3, 358
Istria.....	3, 297	2, 972
Bukowina .....	3, 001	2, 697
Styria .....	2, 973	2, 774
Carniola.....	2, 652	2, 554
Voralberg.....	2, 272	2, 071
Dalmatia.....	2, 036	1, 906
Corinthia.....	1, 850	1, 786
Tyrol.....	1, 659	1, 592
Saltzburg.....	1, 257	1, 163
Empire of Austria.....	4, 059	3, 708
Hungary and Siebenberg...	2, 690	2, 663
Croatia and Slavonia.....	2, 821	2, 722
Military boundary.....	1, 889	1, 885
Hungarian Monarchy.....	2, 652	2, 621
Austro-Hungary .....	3, 329	3, 145

In order to show the increase in the population of Austria and Hungary during the last census period in comparison with their neighboring States, I transmit the following table:

Countries.	Last census.		Former census.		Annual geometrical increase.
	Year.	Population.	Year.	Population.	
Saxony .....	1880	2, 970, 220	1871	2, 556, 244	1. 68
Prussia.....	1880	27, 251, 067	1871	24, 606, 532	1. 14
German Empire .....	1880	45, 194, 172	1871	41, 010, 150	1. 09
Denmark.....	1880	1, 980, 675	1870	1, 784, 741	1. 05
Bavaria .....	1880	5, 271, 516	1871	4, 852, 026	0. 92
Württemberg .....	1880	1, 970, 132	1871	1, 818, 539	0. 89
Austria .....	1880	22, 130, 684	1869	20, 396, 630	0. 74
Switzerland .....	1880	2, 846, 102	1870	2, 666, 838	0. 65
Norway .....	1875	1, 806, 900	1865	1, 701, 756	0. 60
France .....	1876	36, 905, 788	1872	36, 484, 437	0. 29
Hungary .....	1880	15, 610, 729	1860	15, 417, 327	0. 11

JAMES RILEY WEAVER,  
Consul-General.

UNITED STATES CONSULATE-GENERAL,  
Vienna, Austria, June 1, 1881.

## THE HUNGARIAN CENSUS FOR 1880.

REPORT BY CONSUL-GENERAL WEAVER, OF VIENNA.

The total population of the Hungarian Monarchy as resulted from the census of December 31, 1880, recently published, given by cities and counties, and compared with the last census of 1869, is as follows:

## POPULATION BY CITIES.

	1880.	1869.	Percent- age of increase or decrease.
Pest.....	350,821	270,685	+ 32.74
Arad.....	35,718	32,725	+ 9.14
Baja.....	18,791	18,110	+ 3.76
Debreczin.....	51,359	46,111	+ 11.38
Fünfkirchen.....	28,789	23,863	+ 20.64
Grosswardein.....	31,441	28,698	+ 9.55
Hold-Mező-Vasarhely.....	74,094	70,179	+ 5.57
Káschau.....	26,422	21,742	+ 21.52
Kecskemet.....	46,039	41,195	+ 11.75
Klausenburg.....	28,871	26,382	+ 9.43
Komorn.....	13,100	12,256	+ 6.86
Maria-Theresigel.....	61,655	56,823	+ 9.46
Maros-Vasarhely.....	12,843	12,678	+ 1.29
Neusatz.....	21,381	19,119	+ 11.83
Oedenburg.....	23,414	21,108	+ 10.96
Pancsova.....	16,984	16,888	+ 0.54
Pressburg.....	48,284	46,540	+ 3.71
Raab.....	21,062	20,035	+ 5.13
Schemnitz.....	15,212	14,029	+ 8.44
Stuhlweissenburg.....	25,597	22,683	+ 12.84
Szatmar-Nemeths.....	19,737	18,353	+ 7.52
Szegedin.....	50,983	49,153	+ 3.70
Temesvar.....	33,829	32,223	+ 4.93
Werschetz.....	22,347	21,095	+ 5.98
Zombor.....	24,742	24,309	+ 1.72

## POPULATION BY COUNTIES.

Counties.	1880.	1869.	Percent- age of increase or decrease.
Abauj.....	136,334	144,924	- 5.92
Arad.....	269,079	289,381	- 7.01
Arva.....	81,184	82,364	- 1.43
Bacs-Bodrog.....	511,881	491,614	+ 4.13
Baranya.....	264,312	261,643	+ 1.02
Bars.....	135,392	137,191	- 1.31
Bekes.....	229,814	212,973	+ 7.94
Bereg.....	153,235	159,223	- 3.76
Bihar.....	415,701	470,687	- 11.68
Bistritz-Naszod.....	94,999	96,339	- 1.39
Borsod.....	194,647	195,037	- 0.20
Ecsad.....	108,685	94,658	+ 14.81
Esik.....	110,991	107,285	+ 3.45
Esongrad.....	102,262	95,886	+ 6.65
Eisenburg.....	357,973	331,706	+ 7.92
Fogaras.....	84,507	86,943	- 2.80
Gömör.....	165,141	173,438	- 4.78
Gran.....	71,665	67,024	+ 6.92
Gross-Kokelburg.....	132,664	137,610	- 3.60
Hajduken.....	121,521	119,548	+ 1.65
Haromszek.....	125,523	125,881	- 0.28
Heves.....	207,234	208,500	- 0.61

## POPULATION BY COUNTIES—Continued.

Counties.	1880.	1869.	Percent- age of increase or decrease.
Hermannstadt.....	141,181	145,523	— 2.98
Hont.....	100,350	101,908	— 1.55
Hunyad.....	248,287	257,557	— 4.38
Iazygien-Kumanien.....	277,678	258,553	+ 7.39
Klausenburg.....	168,412	177,883	— 5.82
Klein-Kokelburg.....	92,000	100,161	— 8.14
Komorn.....	138,629	129,116	+ 7.37
Krasso-Severin.....	379,876	379,068	+ 0.21
Kronstadt.....	83,988	83,090	+ 1.08
Liptau.....	74,367	79,273	— 6.18
Marmaros.....	225,215	220,506	+ 2.13
Maros-Torda.....	145,819	152,949	— 4.66
Neutra.....	374,263	361,005	+ 3.67
Neograd.....	192,060	198,269	— 3.17
Oedenburg.....	222,503	208,946	+ 6.48
Pest-Pilis-Solt.....	584,634	534,548	+ 9.37
Pressburg.....	265,863	250,837	+ 6.00
Raab.....	88,440	83,602	+ 5.78
Saros.....	168,388	175,292	— 3.98
Schümegh.....	304,151	287,555	+ 5.77
Sohl.....	103,285	98,216	+ 5.16
Szabolcz.....	218,968	218,791	+ 0.08
Szathmar.....	271,789	290,530	— 6.45
Szilagy.....	170,816	194,595	— 12.22
Szolnok-Doboka.....	196,236	210,597	— 6.82
Temes.....	340,470	358,018	— 4.90
Tolna.....	234,508	220,740	+ 6.24
Torda-Aranyos.....	136,537	137,853	— 0.95
Torna.....	20,849	23,176	— 10.04
Torontal.....	514,835	529,540	— 2.80
Trentschin.....	243,864	248,626	— 1.92
Turocz.....	45,797	45,346	+ 0.96
Udavarhely.....	104,754	105,467	— 0.68
Unterweissenburg.....	177,542	188,702	— 5.94
Ugocsa.....	65,764	67,498	— 2.51
Ung.....	126,207	130,032	— 2.96
Weissenburg.....	183,780	173,551	+ 5.94
Wiasprim.....	207,154	201,431	+ 2.80
Wieselburg.....	81,467	75,486	+ 7.94
Zala.....	357,860	333,237	+ 7.32
Zemplin.....	261,784	292,771	— 8.08
Zips.....	172,367	175,061	— 1.54

## RECAPITULATION.

Cities.....	1,112,515	966,482	+ 15.11
Counties.....	12,587,490	12,594,763	— 0.06
Fiume.....	21,363	17,884	+ 19.45
Croatia and Slavonia.....	1,191,845	1,143,285	+ 4.25
Military Boundary.....	697,516	693,907	+ 0.52
Grand totals.....	15,610,729	15,416,321	+ 1.26

From the foregoing table it appears that the increase during the last eleven years was only 194,408, being  $1\frac{1}{4}$  per cent., or an annual increase of only *twelve-hundredths of one per cent.*; that this increase resulted almost entirely from the cities, since the counties show an actual loss of 7,273 inhabitants, resulting from a small increase in twenty-eight counties to the amount of 311,211 inhabitants, and a decrease in thirty-six other counties to the amount of 318,484. This slow progress is certainly startling, manifesting a stagnation in the development of the country, being considerably less than the average increase for the former period of twelve years, from 1857 to 1869, for which the annual increase was *nine-tenths of one per cent.*

Some of the assigned causes of this slow development are the recent wars, the commercial crisis of 1873, the cholera of 1872-'74, the emigra-

tion of Hungarians to the United States, and the social ostracism of the Germans by the Magyars; but all these causes are not sufficient to explain fully the actual producing causes, which probably are to be found in the characteristics of the various nationalities composing the monarchy. The large increase manifested in the cities, particularly in the capital, would indicate a strong tendency to abandon the rural districts for the more agreeable and exciting life of the cities. This tendency doubtless has been greatly quickened by the depression recently felt in the agricultural districts. It is stated, furthermore, that the Magyar, Slovenian, Ruthenian, and Servian counties manifest generally the greatest diminutions, while in the few counties where the Germans predominate the increase is the most marked; that consequently the remedy for the future would seem to be the infusion of German blood into the veins of the declining races that otherwise may gradually become extinct. But such a remedy under the present state of race feelings cannot be hoped for. Furthermore, as long as great armies exist, the best blood and resources of the country are so absorbed that domestic life and cheap living become impossible, and with emigration to more favored lands and the destruction of the family, the only surprise is that this *stagnation* of population does not become a rapid *retrogression*.

JAMES RILEY WEAVER,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Vienna, Austria, May 27, 1881.*

### THE CENSUS OF VIENNA.

REPORT BY MR. DELAPLAINE, SECRETARY OF LEGATION AT VIENNA.

The census of the population in Vienna proper (that is, exclusive of the "Vororte," or those portions lying outside of the "Linien," being toll and excise barriers) has been completed in all its details, and the result furnishes certain interesting data, which I beg to submit.

The number of houses in Vienna amounts to 12,210. Of these, on the 31st December, 1880, 12,013 were occupied, 197 unoccupied. In these reside 141,190 separate families, composed of 705,402 persons. This total population consisted of 332,246 males and 373,156 females, and of these 692,139 were permanent residents and 13,263 occasionally absent. Of the permanent residents the number entitled to claim Vienna as their home, and enjoy the privileges pertaining to such domiciliation, amounted to 116,038 males, 133,315 females. Those belonging to Lower Austria were 92,506 persons; to other Austrian provinces, 275,554; to Hungary, 60,632; to Bosnia and Herzegovina, 46; to foreign countries, 27,311. Of these claiming to be natives of Austria 8,465 are absent. The statement of the respective ages shows that seventeen persons have attained the age of 90 years; twenty-three the age of 91; ten the age of 92; ten the age of 93; five the age of 94; seven the age of 95; four the age of 96; two the age of 97; two the age of 98; one the age of 99; one the age of 100 years.

The statement in respect to religion presents the following numbers: 603,084 Catholics, 829 Old Catholics, 663 United Greek, 1,385 Dissenting Greek, 22,320 of the Augsburg and 2,673 of the Helvetian confession, 368 Anglican, 10 Menonite, 51 Unitarian, 72,543 Jewish, 17 Mahomedan, 120 various other confessions, 1,239 of no particular confession.

The number of persons able to read and write is 585,020; the number of those able to read only, 2,169 males, 7,061 females, while those ignorant of reading and writing (including children) amount to 48,677 males and 61,775 females. The number of children less than six years old amounts to 34,857.

Of the residents here in Vienna belonging to Austria, 592,295 use in conversation the German language; 23,342 the Bohemian, Moravian, and Slovakian; 907 Polish, 76 the Ruthenian, 210 the Slavonian, 57 the Croatian, 486 the Italian, 28 the Roumanian, 12 the Hungarian.

Of the persons not belonging to Vienna and Lower Austria, who have obtained the right of domicil, are the following: Born in Bohemia, 131,748; in Moravia, 83,284; in Galicia, 15,170; in Silesia, 14,903; in Upper Austria, 11,930; in Styria, 78,220; in Tyrol, 2,415; in Hungary, 58,344; in Croatia, 1,997; in Fiume, 79; in the Military Border, 212. Of foreigners entitled to privilege of domicil, born in Prussia, 6,636; in Saxony, 2,015; in Bavaria, 5,183; in Würtemberg, 1,342; in the other German states, 3,487; in Switzerland, 1,244; in Italy, 1,335; in France, 937; in Spain, 18; in Portugal, 6; in Belgium, 95; in Holland, 68; in Denmark, 140; in England, 728; in Sweden, 82; in Russia, 952; in Roumania, 801; in Servia, 238; in Bulgaria, 79; in Montenegro, 17; in Turkey and in Egypt 1,112; in Greece, 106; in America, 572; in other countries, 1,118.

The census of domestic animals has exhibited that 10,954 horses, the property of 3,327 owners, 4,217 head of cattle, including 4,187 cows, belonging to 354 owners, 686 goats belonging to 344 owners, 6 mules, 5 asses, 11 sheep, 381 swine, 155 beehives, are in Vienna.

The occupations of the inhabitants of Vienna are as follows: Ecclesiastics and persons belonging to the religious orders, 596 males, 979 females; officials in active service, 6,004 males, 20 females; military officials, 199 males (the military in active service not being included in the census); persons engaged in instruction, 3,024 males, 2,790 females; authors, editors, 570 males, 25 females; actors, musicians, &c., 1,393 males, 739 females; painters, sculptors, 954 males, 53 females; architects, 943 males; lawyers and notaries, 766 males; superior sanitary officials, 1,371 males, 5 females; inferior sanitary officials, 120 males, 870 females; persons employed in public bureaus, 2,762; public guardians and watchmen, 2,175; land proprietors, 444 males, 133 females; farming lessees, 62 males, 4 females; mineralogists and miners, 42 males, 2 females; tradesmen, 25,212 males, and 8,455 females; persons engaged in commercial business and in traffic, 15,034 males, 4,448 females; credit institutions and bankers, 473 males, 14 females; forwarders through transportation by land, 1,162 males, 116 females; through transportation by water, 22 males, *rentiers* (persons living on personal incomes), 5,939 males, 9,460 females; persons supported by pensions, 3,409 males, 554 females; institutions of education, 50 for males and 32 for females; charitable institutions, 18 for males, 19 for females; persons of unknown occupations, 1,009 males, 1,800 females; total, 73,753 males, 31,518 females who have self-supporting means of existence. Further, assistants in trade and business establishments, 26,189 males and 2,378 females; workmen, 114,297 males, 94,376 females. The number of domestic house servants amounts to 16,749 males, 75,238 females. Finally, it appears that there are 516 persons totally blind in both eyes, 569 deaf-mutes, 419 lunatics, 716 idiots, included in the inhabitants of Vienna.

J. F. DELAPLAINE.

UNITED STATES LEGATION,  
Vienna, May 13, 1881.

## AMERICAN VS. GERMAN PORK AND LARD.

REPORT BY CONSUL FOX, OF BRUNSWICK.

I have the honor to transmit herewith an advertisement with translation which appeared in the "*Braunschweiger Tageblatt*" a few days since. The advertisement explains itself, for in his effort at *réclame* for his own wares the advertiser has seen fit to attack and disparage those of American manufacture. The reference to American production shows how much competition from the United States is feared, and I am sure that such an advertisement as this is much more detrimental to our export trade than an editorial or local notice would be. The average German reading it will say to himself, "This must be true to a great extent, as no one would dare to make such statements unless there be a semblance of truth therein." This, added to the fact that the hue and cry has been general against American edibles, will cause thousands to abstain from their consumption rather than run any risk.

It is naturally a cause for inquiry why the German consumers are so bitter in their denunciation of American pork, for a healthy competition must naturally tend to their advantage. I attribute it to the fact that Germans of all classes will eat *rohen schinken* (raw ham) and *schmalz brot* (lard spread on black bread) as delicacies. This is one of the main reasons why the inspection of swine is so rigid in this country. In asking the opinions of several physicians about raw ham, I found the medical fraternity does not agree. One physician maintained that it was delicious, digestible, and especially good for weak stomachs. Another declares that the practice of eating raw ham or raw meat of any kind is detestable, but the majority of Germans incline to the former view of the matter. It is therefore not to be wondered at that they are averse to American hams, taking into consideration that they have been heralded from one end of Europe to the other as totally unfit for consumption.

I earnestly join in the suggestion of my several colleagues and urge the necessity of thorough inspection of edibles before shipment. In a late conversation with a German merchant of recognized broad commercial views, and a thorough business man, I complained of the harshness with which our merchants were treated by those of his country. This gentleman replied, "We need you; we must eat your pork, bacon, and canned meats, but we want to know what we are eating. Why does not your government give us an official guaranty that the goods are pure." I think this states the matter in a nutshell. Inspectors of provisions should be appointed whose sole business would be to inspect provisions for export. These should be *United States officers*; this latter I merely make as a suggestion, for discussion and interchange of opinions may show such procedure to be incompatible with our business system. The necessity for immediate action is, however, clear. We can trade successfully with Germany, who needs us, but we must have the goodwill of the people, and in order to have that our merchants must maintain their reputation for integrity and fair dealing.

WILLIAM C. FOX, *Consul*.UNITED STATES CONSULATE,  
*Brunswick, June 7, 1881.*

*Translation of the advertisement referred to by Consul Fox.*

**MARGARINE OR SPAR-BUTTER.**—The results of the research, and the opinion of the city control und *Auskunfts station* of the agricultural institute of the Kiel University, and also of the chemist, Dr. Uler, in Hamburg, shows that the above-mentioned spar-butter, as manufactured by me, contains a larger proportion of fat and is more durable than *good* butter, with the same appearance and taste, and can therefore be used as a perfect substitute, and is at all events much better than the poorer qualities of natural butter. Every chemist examining the same must obtain a like result. My margarine butter contains 85 to 90 per cent. clear butter fat, and is *better flavored, more nutritious, and healthier* than the American, or so-called "Hamburg" lard. Owing to the fact that it is customary in America to feed corn, the lard contains a large quantity of oil, and is perfectly fluid in summer. Before it is sent to market, as the season may be hot or cold, from 10 to 20 per cent. of stearine is added in order to give it consistency. The stearine is indigestible, and hence the many stomach complaints caused by cooking with American "Hamburg City lard," causing belching, &c.

The process of manufacture of my margarine butter consists mainly in using fresh, clean-washed suet, which is placed under a cold pressure of 400 centners. The soft parts of the fat (margarine) are pressed out and then churned with milk and cream. The milk and cream give the aroma and flavor of fresh natural butter. In the manufacture of American lard, stearine is *added*; in my margarine the stearine is *abstracted*. My article is therefore healthier and more nutritious than American lard.

## AMERICAN LARD IN HUNGARY AND GERMANY.

*REPORT BY CONSUL FOX, OF BRUNSWICK.*

I have the honor to send you inclosed an article with translation from the *Pesther Lloyd*, and published in the *Braunschweiger Tageblatt* of yesterday. From this it appears that American lard is also to suffer banishment. With the exception of an advertisement referred to in a previous dispatch, this is the first intimation I have that any objections had been raised to this article. American lard has long been a standard article here, and it is to the interest of our refiners to give this matter attention. I trust the government will take decisive action toward refuting the manifold charges against our productions, otherwise it may be regarded as certain that sooner or later the portals of Germany will be closed against them.

WILLIAM C. FOX,  
*Consul.*

UNITED STATES CONSULATE,  
*Brunswick, June 13, 1881.*

*Translation of article from the "Pesther Lloyd."*

Questions propounded to the Hungarian National Sanitary Council by the Ministry of Finance, viz: Whether lard imported from America was to be considered injurious to health, and whether it should be considered necessary to prohibit its importation?

These questions were discussed in session of June 2. The report of the referee, Dr. Ludwig v. Gross, was accepted and the following resolutions adopted:

Sanitary demands in relation to animal food are only fully complied with when a thorough knowledge can be obtained of the animal's origin and the mode of feeding, and it is further absolutely necessary to know that the animals are in healthy condition, and to exercise a control in this particular. Our laws and statutes provide and give sufficient guarantee against the sale of lard from diseased swine. It is, however, practically impossible to exercise this control over lard imported from America; and whereas it is shown by reliable reports that whole shiploads of salted and smoked meat of animals infected with disease during an epidemic were shipped to Europe, and that the consumption of the same caused sickness in Barcelona and Stockholm,

it is correct to presume that the fat of those animals, of whose origin we know nothing, has been shipped to European markets and will prove injurious to health. This danger is greater from the fact that lard in America, especially Chicago, put up for export, is pressed out by machinery and not, as with us, by melting. The relative certainty that the *trichina spiralis* is destroyed, as is the case where intense heat is employed, therefore disappears. Therefore, whereas the fat of the diseased swine is injurious to health, and as the rules and regulations, in force for the control of inland products, must be equally applicable to products imported from America, and as any control as to the origin of American pork is impracticable, the Hungarian National Sanitary Council holds the opinion that lard imported from America is dangerous to health, and that its importation into the Hungarian dominions should be prohibited for the same reasons which cause the prohibition of pork and bacon.

## THE WAY TO GET PURE MILK.

### HOW THE MATTER IS MANAGED IN GERMANY. THE MILCHKUR-ANSTALT AT FRANKFORT-ON-THE-MAIN.

REPORT BY CONSUL-GENERAL LEE, OF FRANKFORT-ON-THE-MAIN.

The adulteration of food is an evil common to all countries. In Germany it has provoked much discussion and stringent legislation. The articles of nutrition which have been subjected more or less to falsifying and corrupting processes are very numerous, but of no one of them has the adulteration been more universal and persistent than that of milk.

To obtain that article and its adjunct, cream, in a pure and healthy state, has been and is a matter of difficulty. The materials which currently pass for these staples, and which bear their names, would scarcely be recognized by a western New York or a northern Ohio dairyman. The same is true of the butter, so-called. This latter article is sparingly used by the Germans, and partly by reason, probably, of its usual falsification and impurity.

Milk being more necessary than butter, it is much more generally consumed. To guard against its adulteration, a police inspection has been established in the various cities and towns, whereby the article when brought to market is examined, and, if found impure, confiscated. In this city a fine of one mark for each one per cent. of water added is levied. An instrument known as a galactometer is also in common family use for the detection of watering. As illustrating the operations of the police inspection it may be mentioned that in the city of Mannheim last year analyses of milk were made by police order to the number of 309, out of which 245 resulted in showing impurity. Recently fines were levied in the same city to the extent of 650 reichsmark in the course of one month for milk adulterations.

But in spite of all these precautions and preventives the evil continues, and has put those who insist upon having absolutely pure and wholesome milk to the necessity of obtaining it by some other than the ordinary methods.

To this end, new safeguards have been devised, the operations and benefits of which it is intended herein to set forth.

Adulteration, however, is not the only evil to be guarded against. The quality of milk depends also upon the constitution of the cow which supplies it. There is little or no assurance when the article is obtained in the usual way that it comes from cows which are free from disease. In this country all live stock is kept in pens, where the animals are deprived of the exercise, and often of the pure water and wholesome food necessary to their health. Cows are sometimes fed upon oil-cakes and

other residuums, as well as upon certain articles of green food, which are considered by physicians deleterious to the quality of the milk. Unclean stabling is another source of impurity and disease. The breed of the cows, as well as the nature of their food, has much to do with the quality of the milk; that of certain breeds being much more nutritious than that of others. Cows which pasture upon the mountains give less, but of better quality, than those kept upon the lowland meadows.

It has also been found that more damage is done to the quality of the milk by long transportation, and by carrying it in unclean vessels, than by watering.

Undoubtedly a good deal of disease and mortality, particularly among young children, results from these various causes. It has been noticed that certain classes of complaints are particularly prevalent among infants at those seasons of the year when the food of the cows radically and rapidly changes, and that infant mortality often largely increases at such periods. It has further been discovered that cows are subject to a disease which corresponds to that known as consumption in man. To the Germans this disease is known as the *perlsucht*. For ten years past, experiments have been made to ascertain whether this complaint could be communicated by the milk of animals possessing it, and an affirmative conclusion has been reached. In Germany the *perlsucht* is widely prevalent among cows, and seems to be increasing. It may exist a long time before it is detected, even by a veterinarian, and milch cows are especially subject to it.

As a means of security against this and all the other foregoing sources of adulteration, impurity, and disease in milk, the Frankfurter Milchkur-Anstalt has been established. This institution dates from April 1, 1877. It is not the first of its kind, its prototype having been founded by the economist, Herr Ramm, at Stuttgart. The Frankfort Anstalt is largely indebted for its existence to the medical association of this city. It is managed by a commission consisting of three physicians, one veterinary surgeon, and one chemist. On the 1st day of April, 1877, the day of its opening, 40 quarts of milk were sold. In the spring of 1879 the daily sales had increased to 800 quarts. The Anstalt keeps Swiss cows of the Rigi breed and Toggenburger species, especially selected for the institution at the place of their nativity in Switzerland. This breed is said to be least liable of all to the *perlsucht*. Professor Leonhardt, an expert of much experience, declares that he never knew of a case of that disease among the Toggenburger cows.

The Frankfort and all other Milchkur-Anstalten feed their animals the whole year round dry food of irreproachable quality and of unvarying quantity. Changes of diet, it is believed, would do the animals no harm, but would be injurious to infants using their milk. Each cow receives, daily, 10 pounds of meadow hay, 17 pounds of clover, 6 pounds of hulled barley meal, and 4 pounds of wheat flour. The animals are kept in stalls. They are forbidden to go at large, because so doing they would obtain nutriment that would not be good food for them. Their hides are kept clean, and the utmost attention is paid to the regularity of watering and feeding, and to the ventilation and cleanliness of the stables. It is claimed that the health of the cows in the Frankfort Anstalt could not be better.

The Anstalt receives only cows that have been fresh two or three times, and retains them until they have been fresh two or three times more.

No difference in the quality of the milk delivered from the institution is allowed. To insure evenness of quality the product of about ten

different cows is mixed together. One object of this is to diminish the chances of communicating injury from any animal that may happen to be unhealthy. The unevenness in the quality of the milk given by the same cow is another reason for mixing. Professor Hofmann, of Liepzig, found in the first quart drawn 1.5 per cent. of fat, and in the last quart from the same cow, 10 per cent.

The milk is put up in quart bottles, which are carefully closed with wax and stamped with the seal of the Anstalt.

The drivers of the wagons are restricted to a certain length of time within which to make their deliveries, and must do their work so rapidly that the opportunities for adulteration are very small.

Cleanliness is strictly required. The empty bottles are twice cleansed in a weak solution of soda, and then again in clear water, and placed to dry. The corks are boiled in a solution of soda each time after use, and are then well dried; they are also frequently replaced by new ones.

Spring wagons are used for deliveries and have apertures for ventilation. When exposed to the hot sun they are covered with cocoa mats. It is not allowed that a wagon shall contain more than can be delivered in three and a half hours.

During one summer an extra bottle of milk was sent regularly with the wagon making the longest trip, and on being opened several hours, or half a day afterward, was invariably found to be unchanged.

Complaints as to the quality of the article delivered have seldom been received, and the longer the institution is in operation the more unfrequent they are. In most of the cases where fault was found it was believed that the blame belonged to the recipients of the milk, on account of their not having treated it properly.

Each day a bottle of the milk is given to the chemist for inspection, although any change of quality would be readily noticed by the consumer. The examination is made according to Müller's method by Quevenne's lactodensimeter and Chevalier's cremometer. Chemical analyses are also made from time to time. The following is the average result of the Müller tests: Specific weight of unskimmed milk, 33 degrees; specific weight of skimmed, 35 degrees; volume of cream, 10 per cent. The average result of the chemical analyses is given as follows:

	Per cent.
Water .....	86.953
Fat.....	3.978
Albumen .....	3.644
Sugar.....	4.718
Salt .....	0.707
Solid matter .....	13.047

It will be observed that the amount of solids, or nourishment, contained in the milk of the Rigi cows amounts to about 13 per cent.; that of the Holland or Friesland cows, on the other hand, contains but 11 per cent.

The Anstalt milk costs 50 pfennige (about 12 cents) per quart, which is only a trifle more than the ordinary kind costs. Its use, it is claimed, has actually diminished the number of nurses employed in the city, and has in other respects produced beneficial results that are quite surprising. It has been especially noticeable that children using the Anstalt milk suffer less from colic and other infantile complaints than those using the common quality. There are some few infants which cannot endure cow's milk at all, no matter how carefully prepared, and it is admitted by the superintending commission that there is no nourishment so beneficial for a child as that which it draws from the breast of

a healthy mother. But since it is unfortunately so often necessary to find a substitute for that, the commission believes that the pure natural nourishment which the Milchkur-Anstalt provides is far better than any artificial preparation, especially during the first two or three months of infantile existence.

Experiments to improve cow's milk have as yet been unsuccessful, and the various farinas produce in one way or other more or less injury.

Condensed milk, although more easily preserved during the summer months than fresh milk, is condemned by the German physicians as containing too much sugar, whereby children grow fat without acquiring strength, and are not fortified against disease.

As to nurses the commission of the Frankfort Anstalt represents that they are so expensive that comparatively few people can employ them, and that it is doubtful whether they are, on the whole, of any benefit, since their own offspring must lose what they give to others.

It is firmly believed that the Milchkur-Anstalten have done and are doing a very important service in the saving of human life, and that many a healthy child owes its preservation to this beneficent agency. It is also believed that the usefulness of these institutions is destined to be greatly enlarged, and the steadily increasing benefits which have been derived from them during the few years they have been in existence certainly justify that opinion. They are almost the only means that have yet been devised by which infants and delicate persons can secure a natural nutriment that is assuredly and absolutely pure, and the plan of their organization is one that readily admits of very great extension.

In this city a benevolent movement is now on foot for making the advantages of the Anstalt more available to the poor. This movement has the sanction and co-operation of many prominent physicians and other influential citizens. In their appeal to the public, which has just appeared in the newspapers, the gentlemen and ladies concerned in this movement say:

Only a minority of infants have the good fortune to be nourished from a healthy mother or nurse, and the artificial nourishment which is consequently resorted to exhibits as its result both an imperfect development of health and a truly frightful mortality among sucklings.

The most effectual remedy for this lamentable evil is to seek an equivalent for deficient nourishment from the mother in the healthiest possible milk of animals.

Many parents in our city have had the happiness to see their infants thrive in the best manner on the milk furnished them from the Milchkur-Anstalt. Such parents, and indeed all friends of humanity, will surely be ready to do what they can to enable the children of the poor to avail themselves of this beneficent means to a healthy development.

It is therefore intended to provide all infants supported by artificial nourishment with the Anstalt's milk at half price during the first year of their existence.

The undersigned hereby declare themselves ready to receive contributions in this behalf, and to personally attend to their faithful application.

It will sufficiently appear from this appeal, which is numerously signed, in what high estimation the benefits of the Milchkur-Anstalt are held by the good people of Frankfort. It may also suggest to many minds the propriety and perhaps pressing need of similar institutions and benevolent movements in our own country. Out of the mass of disease with which humanity is afflicted, to say nothing of the terrible mortality among young children which often occurs in our larger cities, doubtless a large proportion is due to improper and insufficient nourishment during the helpless and tender period of early infancy.

The German Milchkur-Anstalten seem to suggest a simple and practicable remedy for this evil, and it is for this reason that it has been deemed proper to communicate to the Department the information which is herein contained concerning them.

ALFRED E. LEE,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Frankfort-on-the-Main, June 29, 1881.*

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## THE WATER-WORKS IN THE ROUGH ALPS.

REPORT BY CONSUL CATLIN, OF STUTTGART.

During the past fifteen years the question of the water-supply of the Kingdom of Württemberg has been receiving practical attention and study at the hands of the public authorities, as well as of the people themselves. Württemberg, which, in superficial area and population, closely resembles Massachusetts, is a country of mountains and valleys. Its easterly section is crossed by the rugged ranges of the Suabian Alps, and the remainder of its territory is everywhere hilly and undulating. Its population, crowded together on upland and lowland alike—averages 260 persons to the square mile. In mountain fastnesses, apparently uninhabitable and almost inaccessible, are to be found towns and villages teeming with busy life, the homes of hard-worked peasantry, whose utmost hope in life is to be able to gain their bread from day to day. Dependent agriculturally upon the wheat-fields and vineyards which they and their ancestors have reclaimed by ceaseless toil from the rocky slopes about them, they have from times immemorial been contending against that obstacle—of all others the greatest to a rural population—the want of an unlimited supply of fresh, pure water.

As a locality especially illustrative of the extent to which this evil has existed, I may cite the plateaus of the "Rough Alps," lying in that portion of the kingdom bounded on the north by Weissenstein, on the east by Ulm, on the south by Riedlingen, and on the west by Hohen-zollern. On these plateaus there are some seventy communities with 40,000 inhabitants, scattered over an area of 22 square miles. They lie from 750 to 800 meters above the level of the sea, and about 300 above the surrounding lowlands, and their soil is geologically such that any amount of rainfall, being instantly absorbed into the limestone or dolomitic rock, fails to reappear in springs so as to be utilized by the population. What little rain and surface water can be collected in cisterns and reservoirs dug in the soil is not only inferior in quality, but so insufficient in quantity that in times of drought or extreme cold it has often been necessary to bring water in casks for a distance of 10 miles to keep stock alive and serve the ordinary purposes of life.

Such, then, were some of the difficulties to be encountered when, in the year 1867, the royal authorities first conceived the plan of utilizing and distributing the water-supply of Württemberg. Two great streams, the Danube and Neckar, rise in the very heart of the domain and within a few miles of each other; and there are numerous smaller rivers, brooks, and water-courses running in all directions through the valleys. In the official classifications of the area of Württemberg about 5,000 square acres are set down as being covered by "lakes, rivers, and water-courses." There is no lack of water. The only question has been that of its dis-

tribution—by natural means where possible and by mechanical appliances where necessary—so that a reasonable daily supply should be freely obtainable everywhere throughout the kingdom.

The preliminary step toward carrying out this plan was the appointment in 1869 of an official entitled the "Staats-Techniker," whose duty it should be "to superintend the planning and construction of all public works for the utilization of the available river and spring waters, and to advise, in matters of water-supply, the local authorities of any village, town, or city within the kingdom, this advice, including the preparation of plans and estimates, and being without cost to the community asking it."

The services of the Staats-Techniker, so far as the giving of advice was concerned, at once proved popular. Within the five years following his appointment nearly 300 different communities applied for information with a view to introducing a regular system of water-supply. This fact alone serves to indicate the needs previously existing. As showing the substantial results, it may be added that by January 1, 1878, 642 districts, or one-third of the entire number in the kingdom, had either been supplied with water or taken steps to that end.

But by far the most interesting feature of this great work has been the construction of the system for supplying the "Rough Alps" communities with water. It has required eleven years for its completion, has involved an outlay of \$1,000,000, and ranks among the great engineering feats of the age.

The first step toward its accomplishment was the organization into groups of the various villages to be supplied, these groups being necessarily arranged and classified according to their positions in relation to each other, and to the water-courses by which they were to be fed. At first eight, and afterwards nine, groups were determined upon. The rivers furnishing the water are the Eyb and the Fils on the north and the Blan, Aach, Schmeich, and Lauter on the south side of the mountains. On the 11th of May, 1870, the first spade was put into the ground in the section known as the "Schmeich group," and on the 18th of February, in the following year, notwithstanding the severe cold then prevailing, an abundance of pure clear water from the distant Schmeich was delivered from iron pumps and hydrants at a height of 200 meters, in localities where such profusion had never been known before. From that time on, with the pumping station in operation for only five or six hours in every twenty-four, there was furnished an average of 70 liters daily per capita to the entire population of the group.

The moral effect of this achievement upon a peasantry naturally mistrustful of promises and innovations was astounding. The success of the Schmeich group was celebrated by the firing of cannon and by great public rejoicings. The people living within a radius of 50 miles around came flocking in crowds to the villages of the group, in order to convince themselves by actual inspection that the stories they had heard were true. Immediately there was a clamor for the speedy construction of the other groups. The 75 per cent. of the cost which the inhabitants were required to contribute was promptly forthcoming or guaranteed, the Württemberg government generously bearing the remainder. From all sides, in the regions where water-famine had become perennial, came eager entreaties that the government would include this or that locality in its mountain water-works system and its comprehensive net work of pipes. The demand met with a ready response; group after group was hurried to completion; and, finally, the great Eyb group—the largest of the nine—has been put into operation during the early part of the present year.

A very important feature of this system in an economic point of view is the fact that the water power itself is the sole motor used for working the pumping machines. By the agency of overshot, turbine, or tangent wheels, according to the nature of the locality, an aggregate of 225 horsepower is obtained and utilized for forcing the water to the required elevations. Although there is available, in case of need, a slight auxiliary steam-power, it has never yet been found necessary to have recourse to it, even in seasons of prolonged and unusual drought. At such times, it has only been necessary to keep the pumping machines in operation for a few hours longer daily. The average quantity of water originally determined upon as requisite for delivery per diem was 75 liters per capita. The maximum capacity of the works has, however, proved largely in excess of this requirement, being about 125 to 130 liters per capita daily, while, on the other hand, the actual daily consumption has been found to average only 55 to 58 liters per capita. Any possible temporary stoppage of supply, in case of repairs to the pumping machines, or any accident, has been obviated by a system of main and auxiliary reservoirs established at the higher points of elevation, and so constructed, by means of compartments and self-regulating valves, that the supply to any one district in any given group may be increased or diminished at pleasure as occasion requires, as, for instance, in case of conflagrations. There are in all sixty-two of these reservoirs, with a capacity of 200,000 hectoliters—a reserve sufficient, it is calculated, to supply the groups dependent upon them for six, eight, or even ten days in case of any temporary obstruction at the pumping stations. The daily supply furnished by these stations, operating from ten to twelve hours, averages 25,000 hectoliters.

Cast-iron fountains, of simple but graceful construction, are used for the delivery of the water in the streets and public squares. In addition to these no less than 7,000 pipes have been led into private houses and grounds at the owners' expense. In the taverns, shops, breweries, and stables hydrants and faucets are to be found, always ready to give forth their abundant supply of clear water. There are distributed throughout the nine groups 1,600 hydrants in all, built up in well walled shafts with cast-iron covers, and available for extinguishing conflagrations. The total length of main and distributing pipes (cast iron) employed in the entire system is 360 kilometers, the caliber varying from 25 to 200 millimeters in diameter. The perpendicular height to which the water is forced varies from 120 meters minimum to 320 meters maximum, which latter is attained in the Fils group, the largest of the nine, and extending over three entire counties, with a population of 8,000 persons. The water itself is proved by chemical analysis to be of an unexceptionable quality ( $7^{\circ}$  to  $8^{\circ}$  R.), and great precautions are taken to further purify it by straining during its passage from the streams and springs to the pumping stations.

The cost of maintaining the entire system is very light, no steam power being required, and the water-courses themselves furnishing the power by which the pumping stations are worked. The wages of the few employés needed to start and stop the pumps, together with a small outlay for lubricating oil, and for fuel and light used in the pumping stations in cold weather, constitute the principal current items of expense; and these, with a slight additional sum for occasional needed repairs, are assessed pro rata on the inhabitants of the district. Each district has the control and management of its own water-works system, through a committee of which the mayor is, in most cases, president. Semi-annual visits of inspection are made by the state engineer, or one of his assistants, and weekly and monthly reports are rendered,

showing the amount of work accomplished. But, in reality, no report can justly or thoroughly set forth the great practical work of philanthropy achieved by this gigantic undertaking. None but the poor peasant of the Rough Alps, to whose home and hearthstone it has brought a copious, everflowing stream of crystal water, can, in his bettered condition, moral, domestic, and sanitary, truly realize and appreciate the grandeur of a scheme in which science and benevolence have joined hands in his behalf. It is an imperishable monument to its projector, Dr. von Ehmann; and future generations, looking back upon his work, will rise up and call him blessed.

GEORGE L. CATLIN,  
*Consul.*

UNITED STATES CONSULATE,  
*Stuttgart, June 15, 1881.*

### THE CROP PROSPECTS IN NORTHWESTERN GERMANY AND HOLLAND.

*REPORT BY CONSUL DU BOIS, OF AIX-LA-CHAPELLE.*

The United States expects to furnish Europe with large quantities of breadstuffs this year, and as I feel that any fairly reliable statement concerning the present condition of the crop in Northwestern Germany may be of interest to the American farmers and grain shippers, I have endeavored to secure some facts relating to the matter.

Of course, it is impossible to say at this early date what the harvest of 1881 will be; still I am able to report to you, through trustworthy sources, such as agricultural societies, the present actual condition of the crops, which, in a great measure, will indicate what may be expected of the German harvest this year.

In the mountainous regions where the peasantry are exceedingly poor the destructive frosts which are so much dreaded seem to have been of a very moderate character all through this month, and, as a consequence, oats, the principal crop, are in a very flourishing condition.

In the lowlands, vegetation of all kinds is very backward, continuous cold and dry weather with sharp winds has prevailed from March up to the present week, when a moderation of temperature came, and with it some but not sufficient rain. From this savage weather great and serious damage has resulted to the crops, especially to rye and wheat. Rye is of very small growth, and will develop very unsatisfactorily. Wheat is in such a condition that a copious rainfall is absolutely necessary, and should this not be received at an early day, but one-half, and in some places but one-third, of a crop will be realized.

Formerly, rye was the poor man's daily bread; but last year, for the first time in the history of Germany, he found it cheaper to eat pure wheat bread. This blessing came to the poor of Germany through the immense importation of American wheat. Up to the year 1879, wheat was 25 per cent. dearer than rye, but during last year there was little or no difference between the market value of these two staples; and when a difference did occur, it was usually favorable to wheat. At the present time the prices range as follows:

	Marks
Wheat, first quality, per 100 kilograms .....	23
Wheat, second quality, per 100 kilograms .....	22
Rye, first quality, per 100 kilograms .....	22.70
Rye, second quality, per 100 kilograms .....	21.70
Oats, per 100 kilograms .....	16.40

Thus, through the rich productive power of our great plains, that which but two years ago was considered a luxury in the homes of the German laborer has become an every-day article of food.

Since writing the above I have received information from Holland to the effect that hundreds of acres of wheat which are worthless, owing to the effect of the unfavorable weather, have been plowed up and sown with oats or barley. Altogether, the farmers and those who have capital invested in farms, have a most unpromising future, but the consumer takes the unfavorable outlook cheerfully to heart, and observes with an air of contentment and unconcern "What does it matter? The American wheat is 15 per cent. cheaper than the home product, and 20 per cent. better, and as there is abundance of it, I do not see any possible chance of a famine."

JAMES T. DUBOIS,  
Consul.

UNITED STATES CONSULATE,  
*Aix-la-Chapelle, May 27, 1881.*

CENSUS OF BAVARIA FOR 1880.

REPORT OF CONSUL SPACKMAN, OF MUNICH.

I have the honor to send herewith a statement of the population of the principal cities and towns of Bavaria according to the census made on the 1st day of December, 1880, by which it appears that Munich has now 229,343 inhabitants, an increase of 15 per cent. since 1878.

SAMUEL SPACKMAN,  
Consul.

UNITED STATES CONSULATE, *Munich, Bavaria.*

Statement of the population of the principal cities and towns in Bavaria, according to the census made on December 1, 1880.

Towns.	Inhabitants.		Total 1880.	Inhabitants.		Total 1875.	Increase since 1875.	Percentage of increase.
	Males.	Females.		Males.	Females.			
Munich .....	109,425	119,918	229,343	98,412	100,417	198,829	30,514	15.
Nuremberg .....	49,430	50,459	99,889	45,849	45,169	91,018	8,871	9.7
Augsburg .....	29,583	32,015	61,598	27,962	29,251	57,213	4,385	8.
Wurzburg .....	24,915	26,102	51,017	22,386	22,589	44,975	6,042	12.5
Regensburg .....	16,372	17,988	34,360	15,154	16,850	31,504	2,856	9.
Fürth .....	14,760	16,218	30,978	13,077	14,283	27,360	3,618	13.
Bamberg .....	14,366	15,256	29,622	13,192	13,759	26,951	2,671	10.
Kaiserslautern .....	13,010	13,368	26,378	11,277	11,392	22,669	3,709	16.
Bayreuth .....	10,926	11,130	22,056	9,627	9,553	19,180	2,876	15.
Hof .....	10,124	10,779	20,903	9,006	9,262	18,268	2,635	14.
Landshut .....	8,427	8,403	16,830	7,523	7,257	14,780	2,050	14.
Speyer .....	7,546	7,783	15,329	6,896	7,425	14,321	1,008	7.
Passau .....	7,783	7,523	15,306	7,579	7,173	14,752	554	4.
Ingolstadt .....	9,196	6,011	15,207	9,292	5,193	14,485	722	5.
Lichwighafen .....	7,754	7,216	14,970	6,263	5,830	12,093	2,877	24.
Erlangen .....	7,340	7,310	14,650	6,821	6,776	13,597	1,053	8.
Amberg .....	8,134	6,249	14,383	7,354	6,026	13,380	1,003	7.5
Ausbach .....	8,625	7,204	14,029	6,513	6,786	13,299	730	5.5
Kempten .....	6,665	6,945	13,610	6,246	6,396	12,682	928	7.
Schweinfurt .....	6,047	6,500	12,547	5,484	5,749	11,233	1,314	12.

**THE ANNUAL SPRING FAIR AT LEIPSIC.***REPORT BY CONSUL MONTGOMERY.*

The annual spring "Messe," which opened in this city on the 25th of April ultimo, was closed on the 21st instant, and has left little to record outside of the ordinary features which for so many years have distinguished it.

There is a marvelous sameness in these time-honored fairs, not only in the manner in which they are conducted, but in the class and quality of goods exposed for sale. For this and various other causes they are slowly but surely losing their ancient prestige and popularity, and I have therefore to repeat an observation made in a former report, that were it not for the revenue they bring to the city, in the rental of spaces for booths, it is my decided opinion that their discontinuance would be encouraged by all classes in Leipsic. The necessity for these exhibitions of the manufactures of various parts of Europe and even Asia no longer exists. Their day and generation seems to have ceased with the introduction of steam and the wonderful facilities for travel which multiplied so rapidly therefrom, and which now enable the merchant and the trader to purchase their goods direct, at and from the places of manufacture. The prevailing sentiment as to this recent Messe is, that whilst it attracted the average number of visitors to the city, the actual purchases were unusually few, and these seemed, in a measure, restricted to the market in furs, of which various lots, aggregating in value about \$180,000, were bought for exportation to the United States.

Although these figures represent some little activity in this special trade, the first days of the Messe did not present a very encouraging outlook from the fact that during the past year the fur business has not been good throughout Europe. The arrival of a number of American buyers created an excitement in the market and served, in a measure, to remove the dullness produced by the absence of the principal purchasers from England and Russia.

The demand for American furs, particularly the beaver and buffalo, was much better than anticipated, while those from Russia, especially the squirrel, found small sales for the American market and much larger for England and France. I may here state that the fur trade is one of the best and most active in Leipsic and may be expected to expand considerably for the reason that some enterprising firms have established auction sales here upon the system practiced in London. In the recent auction sale of Finckelstein, in this city, larger quantities were offered than in former years, and various lots sold at only average prices, but owing principally to the absence of Russian dealers the larger portion of the stock had to be returned.

The leather trade, on the whole, was considered dull and discouraging. Large quantities were brought to the market, but the principal part of the stock remained unsold and the little which was disposed of realized only medium prices.

The cloth and woolen hosiery trades were not as largely represented as usual, and much of the stock on hand had to be returned, the manufacturers openly confessing that the fair had been very unprofitable for them. Even fancy hosiery goods, which have always been heretofore in good demand, found very few purchasers. The same remarks apply to

linen goods and laces of Saxon manufacture, only such articles as may be termed specialties for ladies' dresses creating any visible activity.

The trade in toys and musical instruments was more encouraging and attracted a number of American, French, and Dutch purchasers, and even found favor with a deputation of traders from the African coast. As these are great specialties of Saxon industry it is safe to predict that Leipsic will long continue to be the center of a very considerable trade therein.

Upon the close of this Messe there was opened in Halle, a city in the adjoining province of Prussian Saxony and about 20 miles from Leipsic, a local exhibition, or ausstellung, for the special industries of the country. This will continue during the summer and will doubtless attract many visitors from all parts of Germany, and I hope not a few from America.

Before closing this report, it does not seem inappropriate to supplement it with a few observations upon the present condition of the trade market in Germany, particularly in its relations to the United States, and, at the same time, to offer a suggestion to our manufacturers and dealers seeking foreign customers, the adoption of which must certainly inure to their benefit.

I am pleased to state that the business "barometer" throughout Germany has a decided upward and favorable tendency, and that the principal firms look forward to a better and more profitable season than they have experienced for several years past. The Germans, learning wisdom by experience of others, are gradually adopting the American system of advertising in the local papers, and as they reap the promised benefits they are becoming thorough converts to the enterprise, and seem anxious to make the system more general. It would undoubtedly prove advantageous for their American correspondents to co-operate with them in this new and encouraging departure. In their business relations with "outside" dealers, and particularly with Americans, the German merchants are very exacting and impose confidence in manufactured articles only so long as they maintain their professed superiority.

I mention this fact only to introduce the suggestion alluded to above, which is that our manufacturers should exercise greater care in examining their goods before exporting them to fill foreign orders. My attention has only recently been called to a stock of goods, imported from one of our most well known and responsible houses, which are of such inferior quality, so defective, and so far different from the samples sent, as to render them unsalable except at prices varying from 25 to 40 per cent. below their cost value. Although in the special goods to which I allude our manufacturers can confessedly rival the English, yet I am grieved to state that, when opened and laid side by side, the superiority of the latter in quality, texture, and finish, was so manifest as to justify the impression that the art is only in its infancy in America.

It would be infinitely better for the manufacturer to retain all such defective pieces and dispose of them in his home market, and only export first-class goods, free from blemish, which by their superior quality will not only sustain the reputation of our industries, but always command a steady and increasing sale.

If our manufacturers and producers desire to establish their business relations permanently on the continent, I know of no surer way by which it can be accomplished, than by furnishing in all cases, in perfect order and condition, whatever goods they may manufacture and which their advertisements announce as superior.

Another suggestion has been made to me by prominent business men in this city, which appears to me suggestive of an enterprising spirit

worthy of all encouragement. This is, that it would be to the advantage of manufacturers of articles of every description to furnish their European buyers with larger quantities of samples of their goods in order that they can distribute them among their own customers, and in this way rapidly extend the sphere of their sales.

J. EGLINTON MONTGOMERY,

Consul.

UNITED STATES CONSULATE,

Leipsic, May 28, 1881.

EXPORTS OF NOTTINGHAM LACE AND HOSIERY.

REPORT BY COMMERCIAL AGENT SMITH.

The last report of the board of trade and navigation shows that the exports of lace goods and hosiery from the United Kingdom to all countries during the month of May last, and for the corresponding months for the years 1879 and 1880, were as follows :

	May, 1879.	May, 1880.	May, 1881.
Lace and pat. net.....	\$573,774 55	\$611,471 25	\$878,204 00
Silk lace.....	38,922 26	36,927 00	98,975 00
Total.....	612,696 81	648,398 25	977,179 00

The same report shows the exports of lace goods, during the five months of the above years, as follows :

	1879.	1880.	1881.
Lace and pat. net.....	\$2,797,634 00	\$4,257,491 00	\$4,600,132 12
Silk lace .....	147,700 00	201,301 00	428,040 00
Total.....	2,945,334 00	4,458,792 00	5,028,172 12

The exports of hosiery, during the same periods, were as follows :

	1879.	1880.	1881.
Stockings and socks.....	\$804,305 00	\$733,033 00	\$827,912 00
Other kinds .....	955,367 00	1,183,859 00	1,289,243 00
Total.....	1,759,672 00	1,916,892 00	2,117,155 00

The number of dozen pairs of stockings and socks exported was as follows:

	1879.	1880.	1881.
Month.....	138,100	125,653	131,431
Five months.....	484,266	457,909	549,770

The value of woolen hosiery, of all kinds, exported during the month and five months, was:

	1879.	1880.	1881.
Month .....	\$55,740 35	\$76,851 76	\$52,697 00
Five months .....	467,429 00	475,530 00	403,423 00

The particular features of interest in this report are the large increase in the export of silk laces during the last three years and the small increase in the exports of hosiery. The first is accounted for by the prevailing fashion for what is known as here "Spanish lace," the demand for which has been such that the manufacturers here have been unable to supply it. Many orders have been declined from inability to obtain the goods required.

The hosiery trade seems to be able to make little advance under the severe competition from Germany.

JASPER SMITH,  
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,  
Nottingham, England, June 14, 1881.

## THE DAIRY INTEREST OF ITALY.

REPORT BY CONSUL CRAIN, OF MILAN.

I have the honor to report on the dairying interest in Italy, first, of milk foods; second, of modes of making; and, third, of dairy associations and cheese factories.

The Italians devote themselves to the rural arts with Virgilian enthusiasm. The plains of Lombardy are cultivated with the care bestowed on garden plots in other countries. Cattle improvement is a study of the Italian farmer. Care, skill, and science are used in the preparation and manipulation of the products of the dairy. Italian butter and cheese, though expensive, are used on every continent; and such is their excellence that, despite that strange but universal fancy for foreign articles, Italians prefer them.

A successful imitation of Italian cheese in the United States would enable our dairymen to supply the demand for it in our country, and export it to those lands where it is used. As the cost of production is but slightly more than that of American cheese, the justly high price that it commands would make its manufacture profitable. The practicability of imitation is shown by the recent successful copying of Swiss cheese in our country; its utility by the large exportation of these imitations. I will minutely describe, from observation and official data, Italian cheese-making processes to enable the cheese-makers of the Mohawk Valley and other dairying districts of our country to produce it in their factories.

: *Milk foods.*—The Piedmontese make butter and many kinds of cheese, of which *gruyera*, *fontina*, *rubiole*, *grana*, and *stracchino* are the best. *Gruyera* and *fontina* are made from the Estival pasturage of the valley d'Aosta. *Rubiole* are small sheep's milk cheeses of Alba, Mondovi, and Acqui, whence they are considerably exported. *Grana* and *strac-*

*chino* are Novarese products. The former is made during ten months of the year; the latter in October and November. The mode of preparing them is being improved; but the increased price of butter induces its extensive manufacture to their detriment.

A large quantity of excellent butter, *grana*, and *stracchino* is made in Southern Lombardy and Mortara. Lecco, Varese, Bergamo, and Brescia produce good *stracchino* and butter. Delicious cheeses, called "*formag-gini*" are made on the rich pasture of the Valtellina hills.

Inferior butter and cheese are made in Mantua. Lodi, Pavia, and Milan, which produce 24,000,000 pounds of butter and 60,280,000 pounds of cheese, are the best dairying districts of Lombardy. The cheese of Venetian factories is poor, but the butter of the mountains of Caprio, Basano, and Valdagno is justly famous.

In Asiago there are 85 creameries and cheese factories, employing 300 hands, and annually producing 33,400 pounds of cheese and 37,400 of butter.

The dairying interest in Liguria is small. The Emelian plain, between the Panaro on the east and the Tribbia on the west, is, with Lower Lombardy, the center of Italian cheese and butter making.

There are 35 factories with 50 cows apiece in the Piacenza district, annually producing 286,000 pounds of *grana* and 124,000 pounds of butter. Owners of two or three cows send their milk to these factories for working.

Dairying is the chief rural industry of the Parmesians. Their *grana* (called "*parmigiano*") is sent to our country. The 129 "*casselli*," or establishments where it is made, are scattered on the plain and on the hills, and have 184 caldrons for the boiling of milk, and 130 churns for butter making. In their production of 1,650,000 pounds of butter and cheese, they consume 9,000,000 quarts of milk. The working season is from April to November, though 20 "*casselli*" are open all the year.

The Emelian cheese keeps well, is improved by age, and much used as a relish with meats. It is made as in Lombardy, but because the cream is only removed from one milking, the percentage of poor cheese is less. In Umbria and the Marshes they make a considerable quantity of cheese of sheep's and goats' milk, and a little of cows' milk. That made on the mountains of Visso, in the Camerino district, is excellent and celebrated.

The small Marcerata region produced alone, according to the last report, 160,000 pounds of cheese per year. It has but few cows, and those of Tuscan and Swiss stock. They give, on an average, from 11 to 13 quarts per day. In some factories cheese is made of sheep's, goats' and cows' milk mixed. Cheese of the first kind is extensively exported, and sells, where produced, at 15 and 20 cents per pound. It obtained prizes at Florence, London, and Paris. Its excellence is due to the healthy and aromatic plants which abound on the Marcerata hills. From sheep's milk the Spoletese produce annually about 770,000 pounds of cheese. One of their factories makes yearly, from the milk of 70 choice Swiss cows, 23,000 pounds of cheese and 2,000 of butter. The sheep's-milk cheese, called "*crete*," of Siena, Tuscany, is well known and good. It bears a distinctive name, but is not made by special process. It is prepared by peasants, without system, and in small lots. Factories for its scientific manufacture have been recently erected. Little cheese is made in Lazio, owing to the scarcity of sheep and the poor quality of the milch cows.

The sweet cheeses of the southern Adriatic provinces of Italy, called "*marzoline*," are said to be delicious, and equal to any produced elsewhere.

A government committee reported some years ago that their excellence was due to rich milk; that old modes of cheese making were followed; that dairying, including utensils, milking, quality and quantity of rennet for coagulating, cheese making, salting, and preserving, was intrusted to empirics; and that to judge, *a priori* it was sufficient to glance at the wretched dairies surrounded with dirt and permeated with odors. Molise produces 27,000 pounds of cheese per year, and Terra d'Oltranto 35,000 pounds, or one-third more than in 1870.

Among the Southern Mediterranean provinces Catanzaro is famous for its butter; Caserta for a peculiar cheese called "*mozzarella*," and Potenza for excellent sheep's-milk cheese. The Casertese make 22,000 pounds yearly, and 26,000 pounds are made in Benevento. The cows of the Modica district of Sicily are large milkers, and the pasturage is so rich that their milk contains fine butter and cheese making properties. The cheese produced is equal to that of Parma, Lodi, England, or Holland. Cows stabled give from 20 to 22 and many from 30 to 38 quarts daily. They do not give milk in winter or at other times when the food is scarce. Sicilian sheep give 1 and goats 2 quarts per day.

In Sardinia two kinds of cheese are made, viz, that of cows' and that of sheep's milk. Of the latter kind about one-third, or 300,000 pounds, is exported. The Sardinians also produce a large quantity of butter.

*Modes of making.*—In making Piedmontese cheese the milk is used when tepid. It is mixed and shaken in whey, which curdles it in one-quarter of an hour.

The curd is shaken for drainage, and when dry pressed in a form. Sometimes this cheese is made of partly skimmed milk.

*Stracchino*, of Gorgonzola, is made of milk containing the buttery parts. When the mountain pasturage is exhausted the Berganese herdsmen drive, for wintering, their herds to the plains. Gorgonzola is their favorite halting spot, for there they first find the luxuriant vegetation of the Lombardian plateau. These herds, reveling on the rich grasses of Gorgonzola, are, from the middle of September to the end of October, very lactiferous.

Cheese is made during these months in small rooms devoted to it in the homes of the Gorgonzolese, who buy the milk of the herdsmen. The autumn temperature, being moderate, is best for cheese making, as too much heat, by hastening the separation of the whey, makes it too dry and friable, while excessive cold produces a wheyey, acid, and easily-spoiled cheese.

The milk while warm from the cow is curdled with well-preserved and prepared calf rennet. The quality of the cheese depends much upon that of the rennet; and experience guides as to the quantity required. In fifteen or twenty minutes, when the milk is coagulated and the whey separated, the curd is hung in hemp cloth bags to drain. As cows are milked twice daily the foregoing is twice done, viz, mornings and evenings.

The morning-drained curd, inclosed in light, flexible wooden bands, covered on their inside surface with hemp cloth, is placed on an inclined board strewn with rye chaff. Being of two milkings the curd is partly warm, partly cold, and, though mixed, care is taken to form the upper and lower strata of the warm, because it is cementitious. As hot and cold curd never perfectly unite, minute interstices remain in the cheese, in which, while maturing, green mold, known as "*parsley*," forms and gives the *stracchino* the delicious taste for which it is famous.

The curd is further drained during the first day of the process by two or three turnings. On the following morning, when of some consistency,

the cloth being removed its value is determined by weighing. After three or four days fermentation begins, and the wooden bands are removed. It is then, once daily for eight or ten days, alternately salted on its upper and lower side, 4 ounces of pulverized salt being, on an average, used per form, or 33 pounds. The Gorgonzolese adopted some years ago the process of quickly turning and pressing the cheese against a salt-covered surface, thus insuring more uniformity and a better crust.

The color changes in a month to pinkish-white, if good; to black, if bad. When black the crust is soft and the cheese perishable in summer. If the crust is sufficiently hard the shade is improved by one or two dippings in salt water.

The time of maturity depends upon the temperature (which is best from 10° to 15° Centigrade), manner of making, and quality of the milk. The Gorgonzolese *stracchino* begins to ripen in April, and continues till September. One hundred quarts of milk make about 25 pounds of this cheese.

*Bellunese* cheese is made by heating the milk, pouring in rennet, letting it coagulate, breaking it into medium-sized pieces, reheating it, putting it in wooden tubs, salting and placing it on stands for daily turning and resalting until consumed.

The following process makes a kind of Frinlani cheese known as "*fieno*": Milk heated until tepid in caldrons is mixed with rennet and left to curdle. The curd is broken in vessels into small pieces, and violently shaken over the fire. When thus crumbled, the caldron being set on a stand, it is gathered, thrown into the "*talcio*" or forming-tub, placed on tables for drainage, dried, and finally immersed in brine.

Other Frinlani cheese is made with milk tepefied in heaters and thence poured into wooden vats for coagulation. The curd formed is wet, broken into large lumps, remoistened with hot whey or water, gathered, and pressed in wooden hoops. It is less solid than that next before described.

*Formaggio di Grana*.—Milk is poured into caldrons and placed on the fire. If mature, *i. e.*, bluish (as it should be in summer), it is warmed to the twenty-fifth degree; if sound, *i. e.*, retaining the whiteness and sweet taste of freshly milked, it is heated to the thirtieth degree. At this temperature, as tested by the hand, it is removed from the fire and mixed with rennet. One-sixth of an ounce of rennet is used per 720 quarts of milk. The rennet is dissolved with a pestle in wooden cups, filtered through horse-hair sieves, the ooing going into the caldron of milk. To prevent hardness the curd formed is broken and turned with the cream-turner, *rotilla* (or stick with wooden disk at end), and *spino* (or cane with twisted twigs or iron pins at one extremity). This is continued for three-quarters of an hour, while concretions appearing on the surface are removed by hand.

Turning is stopped for two or three minute intervals to consolidate but not harden the now softened or dissolved curd. The whey is removed and one-sixth of an ounce of saffron, per 110 quarts of milk, thrown into the caldron. The curd is replaced and left for one hour on the fire, heated to the forty-fifth degree (but not higher), and continually stirred with the *rotilla*.

A cup is filled with curd for examination as to the minuteness of its particles. If small enough the caldron is removed, and the curd sinks and forms on its bottom. To hasten this the cooled whey (before drained off to enable the adding of saffron) is poured into the caldron, the bottom of which is pressed with the *rotilla* to unite and incorporate the curd. The curd is loosed with a stick from the sides of the caldron, lifted,

drawn on the surface, collected in a cloth, placed and left for one hour in a vat, and there wet with whey. It is marked with the name of the owner of that day's cheese, pressed for drainage by hand in a box of narrow beech boards bound with hoops and pack-thread and covered with linen, a wooden disk, and a heavy stone. When dried these coverings are removed and it is rewet with whey, and then covered with buckram, which, under pressure of the disk and stone, makes reticulated imprints on its circular surface. After some hours the buckram is cut, and the clippings removed to permit the whey to dry in. It is covered and rubbed on an oak bench with salt, dipped in salt water, and repressed between the beech boards. Sometimes several forms are simultaneously pressed to improve the under by the salt moisture from the upper. It is resalted every other day for two weeks, then put in the cheese-house, where superfluous salt is removed by scraping. In September it is rubbed with cheap oil.

The cows of the numerous dairies of Puglia and Basilicata are milked once daily. Their milk, when poured into large vats, is divided and half heated to a point which will make it and the unheated mixed, when tested by the hand, 30° Reaumur. Whey of goat's milk is mixed and shaken in it. While curdling it is covered with a cloth to keep up the temperature. When curdled it is broken, stirred with the *rotolo* till in filbert-sized pieces, placed with whey in a vat, rebeaten, wet, and covered with warm whey to "grow."

When by heating on hot coals or boiling in water ductility is obtained, the curd is called "*cresciuta*," or grown. This property acquired, it is cut, the pieces thrown into the pail, where they are wet with hot water, reunited, manipulated, pulled into thread, and made into as many balls as there are cheeses to be made. These thread balls are immersed in the water which served to make them, manipulated till homogeneous and compact, formed by hand into proper shapes, and daily salted for two or three days. Cheese thus made is called "*caciocavallo di Puglia*."

The *caciocavallo* of Calabria is a cows' milk product, prepared by slight modifications of the usual cheese-making process. Upon coagulation turn the resultant mass, and gather, after due heating, the caseine. Form it, by stirring and pressure, into uniform and consistent paste; subject this, in vats, to the action of hot whey; thence remove it to tables for working, where arranged in orbicular forms, and covered with cloth leave it to the chemical action of its constituent parts. During this time, when fermentation begins, it is cut in slices, which are immersed and shaken in hot water, manipulated to drain off the whey, &c., reduced by water and heat to homogeneity, replaced on tables and rendered soft, adhesive, and ductile by frequent dipping and turning in cold water. In this state it is divided, shaped in oval forms, kept the first day in cold water to produce elasticity, and consistency; the next in salt. Thus finished, it is fastened to the end of a stick, and hung from the beam of the cheese-house.

Cows' milk, when coagulated and lightly broken, produces a semi-solid excretion or discharge, which forms the essential substance of *rasco* cheese. This is placed in vats, lightly shaken, dipped quickly three or four times in hot whey, removed, and replaced when sufficiently solid, upside down, in these vats; then kept for twenty-four hours, slightly salted and taken to cool, dry rooms for keeping. This cheese is made from June to October, the season when the milk is most buttery. It is soft, white, and soluble at a low degree of heat.

Sicilian *caciocavallo* is made of cows' or goats' milk, and coagulated like sheep's milk cheeses. When curdled it is not heated in water, but

broken with a piece of wood, the whey removed, dried, and taken from the tub to the trough. Then the curd is sliced, replaced in the tub, cooked in boiling whey, removed to the trough, pressed to solidity, cooled, placed and left for twenty-four hours on a stand or table, sliced, thrown into boiling whey, recooked till viscid, gathered, pressed, drawn by hand, reduced to paste, formed in pumpkin-shaped pieces, salted for twenty-four hours, and hung, prepared for use, in the cheese-house.

*Proratura* cheese is made of cows' milk. The cows are only milked mornings, when their milk is poured into a large pine, tub-shaped receptacle. Only when the atmosphere is cold is it previously slightly heated. Dissolved kid rennet is poured into it, the mixture turned with the *rotolo*, and then left quiet. Upon coagulation the curd is not allowed to become lumpy, but is pressed and softened with the *rotolo*. When the curd sinks in the vat, a sieve of pierced tin is placed and held over it with weights. If much whey rises it is used for *ricotta*; if little, the sieve is removed, and it is left on the curd to facilitate "growth," as before defined. When ductile it is cut in small pieces, placed in another pine vat, and, previously prepared hot water poured upon it. Here the curd is kept till cooked, when the water is drawn off. It is then, in portions, gathered, and stirred with a wooden spoon, and formed, by hand previously wet in cold water, into two-pound balls, which are put, and left for some hours' in tubs of cold water, and finally slightly salted.

*Butter*.—Butter, when made in families who have little milk, is made in cylindrical churns, in which the cream is shaken by movement of the churn handle. Factories use large cylindrical churns on trestles, in which are wings turned by machinery. The butter they produce is cleaner than that made by hand churns.

In Pavia, cream of 6° or 7° R. is shaken in round boxes called "*puraggie*." Each box has a spoon fastened to an axle. This axle is turned by a crank, and revolves the spoon around the inside periphery of the box. The process requires two men. Some use a cradle-churn, which saves labor and produces equally good butter. In Cremona the American machine is in general use, viz, a horizontally fastened tub, in the interior of which is a reel similar to that used in silk-making.

The dairyman of Parma beats the milk with a cream-whipper, and skillfully lets the floating cream, which gathers in the bucket, overflow into a fine-edged wooden bowl, and thence into the churn. In summer it is customary to add 10 pounds of ice to every 30 quarts of cream, while in winter some cream is heated and turned into the churn with the rest. The temperature is always kept from 10° to 15° Reaumur. When in the churn two men alternately beat the cream with a butter-beater joined to a straining frame, raising and lowering it by leverage. Butter should begin to form in three-quarters of an hour. When it is necessary to hasten formation, water is added—where advisable to retard it, ice. If made before the time mentioned, it is soft—if after, hard and set. When prepared it is taken from the churn, worked with the hands, formed into blocks, and left to drain. The blocks are frequently adorned with impressions made with a wooden stamp. The skimmed milk is used for the *ricotta* cheese.

In Catanzaro butter is made with the old fashioned churn, a miserable mechanism, causing loss of milk and time. The manner of keeping butter there, though simple, is exceedingly ingenious, consisting in inclosing it in small bladders, in which it can be conveniently kept and carried without danger of change.

At Modica, where the butter is delicious, it is not made directly from

the cream, but from the "*ricotta*," which is obtained by boiling the small milk after extracting the caseine.

The butter-maker of Sardinia puts the "*ricotta*" in a bowl of cold water, and shakes and presses it between his fingers. In a half hour a white scum appears on the surface of the water, and by continued movement and pressure of the "*ricotta*" increases during the succeeding half hour. This scum is the butter of the "*ricotta*."

*Dairy associations and cheese factories.*—It is hard to determine the epoch in which the first dairy associations were formed. It is known that they were numerous in Savoy in the Middle Ages, and that they have existed since remote times in the French Jura and on the Alpine slopes. Where land is owned in small plots, as in the mountainous parts of Upper Italy, and where large dairies, consequently, do not exist, the making of cheese is impossible, unless assumed by a manufacturer who would buy the milk from the cow-owners, or unless these, in partnership, prepare it.

The advantages of dairy associations and cheese factories are numerous. One cheese-making establishment, set of machines, and utensils answer for many milk-owners, lessen the cost of production, increase and improve the product, facilitate sales, save time, and permit farmers and their workmen to be otherwise usefully employed. These considerations moved the Italian Government to offer, in 1873 and 1874, several prizes, of which the highest was \$240 and a gold medal, to the best managed association, under articles of copartnership, organized for the manufacture and sale of butter and cheese or either, to be thereafter started, composed of at least ten associates having equal rights, working 340 quarts of milk per day, and having a cheese-maker in their sole employ.

Since then cheese factories have greatly increased in number and improved in management. They are everywhere in Italy except Sicily, where small milk-owners carry their milk to the large, and when, after a month, they have delivered to these 250 or 350 quarts, they receive that quantity back at one time. This system of reciprocal loans is mutually beneficial, as a large quantity of milk worked at one time makes more cheese than the same amount worked in small quantities at different times.

I trust, sir, that my suggestion of imitating Italian cheese will commend itself, and inure to the benefit of our dairymen; for while it is a proud thing for a people to teach, the secret of national prosperity consists in having the manliness to learn.

THOS. C. T. CRAIN,  
Consul.

UNITED STATES CONSULATE,  
Milan, May 31, 1881.

## CENSUS OF PORTUGAL.

REPORT ON THE PORTUGUESE CENSUS OF 1877, BY MR. MORAN, CHARGÉ  
D'AFFAIRES AT LISBON.

On the 31st day of December, 1877, a census of the population was simultaneously taken in continental Portugal and the adjacent islands. The result has not been printed until after more than two years have elapsed, and thinking that an examination of it at the present time might be of interest to the Census Bureau at Washington, I made appli-

cation, through Mr. Braamcamp, to the minister of public works, under whose direction the enumeration was executed, for a copy thereof, and by his courtesy I have been supplied with an advance copy, which accompanies this dispatch. It is a large folio volume, entitled "Portuguese Statistics—Population—Census on January 1, 1878."

There appears to have been but little effort made by the authorities to obtain statistical information in regard to agricultural, industrial, or commercial questions, and the work appears to have been mainly confined to the mere numbering of the people. Nor is it complete in that respect, as the ultra marine colonies do not appear in the enumeration at all. Under these circumstances there is very little of interest in the volume beyond general results which may be briefly presented as follows :

POPULATION.

Continental Portugal in 1861.....	3, 693, 362
Adjacent islands in 1861 .....	341, 698
Total .....	4, 035, 060
Continental Portugal in 1862 .....	3, 762, 722
Adjacent islands in 1862 .....	347, 554
Total .....	4, 110, 276
(Gain of about 2 per cent.)	
Continental Portugal in 1864 .....	3, 829, 618
Adjacent islands in 1864 .....	358, 792
Total .....	4, 188, 410
(Gain of about 2 per cent.)	
Continental Portugal in 1878 .....	4, 160, 315
Adjacent islands in 1878 .....	390, 384
Total, January, 1878.....	4, 550, 699
(Gain of about 9 per cent.)	

From 1861 to January 1, 1881, the population of continental Portugal increased from 3,693,362 to 4,160,315, a gain of about 12 per cent., and during the same interval the population of the islands increased from 341,968 to 390,384, a gain of 17 per cent. I think it will be well to add that no great reliance can be placed on the accuracy of the last census, as the system adopted was not calculated to secure it. Blanks of a complicated character were left at each "*fogo*," or fireside, with directions for the head of the family to fill them up on the last day of 1877; they were then collected by the government officials, but without verification or examination, as far as I observed or am informed. I do not know for what reason no account is taken of the population of the colonies beyond the seas, but for the information of the department I add the latest official estimates which I have been able to procure. The aggregate population of these possessions in 1878 was stated to be, as will be seen by the detailed table below, about 2,350,782, but the census of Mozambique and the island of Timor is merely conjectural, as the tribes are savages and the country almost impenetrable.

Cape Verde Islands.....	90, 704
Portnguese Guinea .....	6, 154
St. Thomas and Principe .....	26, 000
Angola .....	433, 307
Mozambique .....	350, 000

Portuguese India.....	444,617
Macao .....	70,000
Island of Timor .....	1,000,000
Total .....	2,420,782

Making the population of the entire Kingdom of Portugal 6,971,481.

BENJAMIN MORAN,  
*Chargé d'Affaires.*

UNITED STATES LEGATION,  
*Lisbon, March 8, 1881.*

### ROUMANIAN COMMERCE.

*REPORT BY CONSUL-GENERAL SCHUYLER, OF BUCHAREST.*

I am enabled from the rough returns of the custom-house to state that the imports of Roumania during the year 1880 amounted to \$51,067,000, and the exports to \$43,783,000, which, as compared with 1879 (imports, \$50,898,000; exports, \$47,730,000), show an increase of imports of \$169,000 and a falling off of exports of \$3,947,000.

The diminution of exports is mainly in cereals, and is owing to the bad harvest of 1879.

The custom revenues from the imports were \$2,115,688 and from the exports \$373,525, showing an increase in the imports of \$11,139 and a decrease in the exports of \$25,195, being a total decrease of \$14,056 from 1879.

Arranged according to countries, the foreign trade of Roumania in 1880 was as follows:

Countries.	Imports.	Per cent. of totals.	Exports.	Per cent. of totals.
Austria-Hungary .....	\$25,280,000	49.50	\$16,592,000	36.67
Belgium .....	666,000	1.30	500	0.00
Bulgaria .....	839,000	1.64	2,476,000	4.04
England .....	11,472,000	22.47	11,283,000	29.07
France .....	3,676,000	7.20	5,552,000	13.80
Germany .....	4,786,000	9.37	144,500	0.33
Greece .....	721,000	1.41	829,000	2.03
Holland .....	7,500	0.02	406,000	1.01
Italy .....	308,000	0.60	584,000	1.51
Russia .....	1,182,000	2.82	973,000	1.74
Servia .....	116,500	0.23	323,000	0.27
Turkey .....	1,704,000	3.34	4,618,000	9.33
Other states.....	309,000	0.60	2,000	0.00
Total.....	51,067,000	100.00	43,783,000	100.00

This table is not strictly accurate. The imports from Austria-Hungary and Germany are somewhat exaggerated at the expense of England for goods carried by railway, as the agents of the consignees not unfrequently state at the custom-house as the place of origin the last place on the way-bill.

Arranged according to categories, the exports and imports in 1880 were as in the following table :

Articles.	Imports.	Exports.
Live animals.....	\$707, 000	\$2, 430, 000
Alimentary animal products .....	539, 000	1, 536, 000
Grain, flour, and cereals .....	875, 000	33, 560, 000
Fruits, vegetables, and their products .....	202, 000	861, 000
Colonial products .....	2, 614, 000	6, 800
Liquors, wines, &c.....	553, 000	153, 000
Alimentary conserves, &c .....	482, 000	6, 000
Vegetables, juices, and medicines.....	368, 000	18, 000
Perfumery.....	107, 000	200
Chemical products.....	429, 000	11, 000
Dyes and dyestuffs .....	335, 000	67, 000
Oils, fats, wax, &c .....	1, 417, 000	10, 000
Other animal productions (except skins) .....	11, 000	166, 000
Skins, furs, and leather.....	6, 052, 000	1, 073, 000
India rubber and gutta-percha .....	186, 000	1, 000
Textiles and textile materials .....	18, 381, 000	1, 720, 000
Paper, books, &c.....	1, 660, 000	39, 000
Woods and manufactures thereof .....	2, 542, 000	1, 015, 000
Petroleum, bitumen, &c .....	607, 000	592, 000
Minerals, glass, pottery, &c.....	1, 496, 000	53, 000
Metals, wrought and unwrought.....	9, 505, 000	156, 000
Carriages, &c.....	406, 000	22, 000
Miscellaneous.....	1, 593, 000	287, 000
Total .....	51, 067, 000	43, 783, 000

EUGENE SCHUYLER,  
*Consul-General.*

CONSULATE-GENERAL OF THE UNITED STATES,  
*Bucharest, Roumania, May 7, 1881.*

THE BANKING INSTITUTIONS OF RUSSIA.

REPORT BY MINISTER FOSTER, OF ST. PETERSBURG.

A large volume in the Russian language has recently been published, entitled "Annual of the Establishments of Credit of Russia," first issue, 1877, which contains full and detailed statistics of the banking institutions of all classes in the Russian Empire. The volume only covers the year 1877, but it is the latest detailed information published, and approximately represents the present condition of banking in this country. I transmit herewith the translation of an article which embraces the most important statistics in the volume.

JOHN W. FOSTER,  
*Envoy Extraordinary and Minister Plenipotentiary.*

UNITED STATES LEGATION,  
*St. Petersburg, February 8, 1881.*

[Journal de St. Petersburg, January 24 (February 5), 1881.—Translation.]

BANKS OF RUSSIA IN 1877.

\* \* \* \* \*

There existed January 1, 1878—  
1st. Two institutions of credit of the government, the Bank of Russia, at St. Petersburg, and the Bank of Poland, at Warsaw ; the first with a capital of 25,000,000 roubles, the second with a capital of 8,000,000, besides which the reserve capital of the

Bank of Russia was 2,978,000 roubles, and of the Bank of Poland 500,000 roubles. The Bank of Russia had fifty-four branches, the Bank of Poland ten.

2d. Thirty-six joint stock banks, with thirty-eight branches, with a capital of 96,994,200 roubles, a reserve capital of 4,616,000 roubles, and a special reserve capital of 646,700 roubles.

3d. Ninety-four associations of mutual credit, with a capital (representing 10 per cent. of the subscription of the members) of 22,000,000 roubles, a reserve capital of 446,000 roubles, and a special reserve capital of 348,800 roubles.

4th. Two hundred and eighty commercial city banks, with a foundation capital of 20,762,000 roubles, a reserve capital of 5,237,900 roubles, and a special reserve capital of 1,324,209 roubles.

There existed then, in all, three hundred and fourteen institutions of credit (of which one hundred and two were branches), with 170,994,700 roubles foundation capital, 13,776,000 roubles reserve capital, and 2,502,300 roubles special reserve capital.

The total transactions were 52,960,582,800 roubles, divided as follows :

Bank of Russia, 24,369,000,000 roubles, say 46 per cent.

Bank of Poland, 781,000,000 roubles, say 1 per cent.

Joint stock banks, 21,829,000,000 roubles, say 41 per cent.

Associations of mutual credit, 3,971,000,000 roubles, say 8 per cent.

Communal city banks, 2,009,000,000 roubles, say 4 per cent.

The deposits of every kind, for a term or without term, amounted to 353,750,000 roubles, divided as follows :

Bank of Russia, 73,800,000 roubles, say 21 per cent.

Bank of Poland, 9,200,000 roubles, say 3 per cent.

Joint stock banks, 135,800,000 roubles, say 38 per cent.

Associations of mutual credit, 56,500,000 roubles, say 16 per cent.

Communal city banks, 78,400,000 roubles, say 22 per cent.

Bills of exchange were presented for 3,708,000,000 roubles, as follows :

Bank of Russia, 1,345,000,000 roubles, say 36 per cent.

Bank of Poland, 20,500,000 roubles, say 1 per cent.

Joint stock associations, 1,737,000,000 roubles, say 47 per cent.

Associations of mutual credit, 533,000,000 roubles, say 14 per cent.

Communal city banks, 73,000,000 roubles, say 2 per cent.

There were delivered in transfers and acceptances 755,750,000 roubles, divided as follows :

Bank of Russia, 534,000,000 roubles, say 71 per cent.

Bank of Poland, 1,000,000 roubles.

Joint stock banks, 218,000,000 roubles, say 29 per cent.

Associations of mutual credit, 2,000,000 roubles.

Discount operations amounted to 1,106,000,000 roubles, as follows :

Bank of Russia, 231,000,000 roubles, say 21 per cent.

Bank of Poland, 47,000,000 roubles, say 4 per cent.

Joint stock banks, 415,000,000 roubles, say 38 per cent.

Associations of mutual credit, 198,000,000 roubles, say 18 per cent.

Communal city banks, 2,214,000 roubles, say 19 per cent.

Loans amounted to 1,484,000,000 roubles, of which 370,000,000 were on securities, 54,000,000 on merchandise, 397,000,000 on call and on special account current, 144,000,000 upon mortgages on real estate, and 519,000,000 roubles on loans from the Bank of Russia to the Treasury. The double movement of the operations of discount and loans alone represented 1,927,000,000 roubles, as follows :

Bank of Russia, 558,000,000 roubles, say 29 per cent.

Bank of Poland, 89,000,000 roubles, say 4 per cent.

Joint stock banks, 687,000,000 roubles, say 36 per cent.

Associations of mutual credit, 326,000,000 roubles, say 17 per cent.

Communal city banks, 267,000,000 roubles, say 14 per cent.

In 1877, 360,000,000 roubles of the public funds were bought, as follows :

Bank of Russia, 127,000,000 roubles, say 35 per cent.

Bank of Poland, 1,000,000 roubles.

Joint stock banks, 216,000,000 roubles, say 61 per cent.

Associations of mutual credit, 3,000,000 roubles, say 1 per cent.

Communal city banks, 12,000,000 roubles, say 3 per cent.

The transactions in bullion and in foreign bills of exchange represented 603,000,000 roubles, an amount in which the joint stock banks figured for 98 per cent., and the banks of Russia for the remaining 2 per cent.

The movement with correspondents and branches amounted to 3,323,000,000 roubles, thus divided :

Bank of Russia, 1,887,000,000 roubles, say 43 per cent.

Bank of Poland, 23,000,000 roubles, say 1 per cent.

Joint stock banks, 2,206,000,000 roubles, say 51 per cent.

Associations of mutual credit, 124,000,000 roubles, say 3 per cent.

Communal city banks, 83,000,000 roubles, say 2 per cent.

The profits realized in 1877 by all the institutions of credit amounted to 84,600,000 roubles gross, and 26,710,000 roubles net.

The net profits of the Bank of Russia represented 7,400,000 roubles, or 32 per cent. of the foundation capital. The Bank of Poland realized 875,000 roubles profits, or 11 per cent. of its foundation capital. The joint stock banks had 12,500,000 roubles of net profits, or 13 per cent. of their stock capital. The associations of mutual credit made 2,380,000 roubles of profits, say 10 per cent. of the capital paid up by their members. Finally, the communal city banks have made profits representing 17 per cent. of their foundation capital.

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## AMERICAN SHIPPING AND SEAMEN.

*REPORT BY CONSUL MARSTON, OF MALAGA.*

Eight or ten years ago Malaga was an important port for American merchant vessels engaged in the fruit trade with New York and other American ports; but at this time our flag is seldom seen in this harbor.

To an American abroad a feeling of reproach comes over him, when he visits the harbor of a seaport and sees among the shipping the absence of his national ensign; especially does he feel this when he sees countries like Italy, Denmark, Norway, Spain, and Portugal, whose flag is flying from many a mast-head, but whose commercial importance, compared with his native land, is far in the background. England, France, and other European nations may, unfortunately, own the vessels, but the United States largely gives them occupation.

The commercial portions of our people know and feel our shortcoming in this respect, and live in hope that something may be done by our national legislature to reinstate us in our shipping.

It may not be expected of a consul in an annual report to discuss what, in his judgment, may be necessary to improve our merchant service. Yet, I believe that consuls at seaports have opportunities of discerning the advantages or defects in our shipping laws, and I venture to speak in support of what I find good, and to expose such defects as have come under my official notice.

From observation as consul, I consider the three months' extra wages allowed to sailors, upon being discharged in a foreign port, is a decided injustice to ship-owners, without reaching the class of Americans for which the law was enacted.

In the first place, American seamen, like American ships, are a thing of the past. Even among the crews of American vessels, you will find nine-tenths are composed of foreign subjects, and, in many cases, many of them are men who never saw America and have no feeling in common with her interests. On board of almost every American vessel you will find a sea-lawyer (generally the cook), who is well informed regarding our shipping laws; he is usually a bad man who has gained control over the crew, and in whom they place implicit confidence. On arrival at a foreign port, having been at work during the voyage causing discontent among others, some disturbance is purposely created which results in sending for the consul, and a conflict of evidence is produced from both sides which would puzzle a Tombs police justice. Affidavit upon affidavit is sworn to, facts distorted, and false evidence produced in hopes that the consul will yield to their demands and discharge the crew with three months' extra wages. If they are not successful, they again make the same effort at the next port of arrival, correcting their evidence in respect to where they failed before, and thus it is so long as they remain in the ship, the effort is renewed till finally they arrive at

some port where the consul will decide, having honorably considered all the conflicting statements from both sides, to discharge the crew; the vessel is made to pay three months' extra wages for which the sailor never worked, but which the ship-owners have to lose; the service is demoralized, the sailor spends or loses his money frequently, immediately after reshipping but before going on board, in a drunken orgie lasting one night, without having enough left to buy a breakfast. Thus the law offers a continued inducement for discontent, and sometimes mutiny, on board of American ships; it is disastrous to the owners of the vessel, and of no lasting benefit to the sailor.

Besides all this, and without the question of extra wages, the wages on board an American vessel far exceed those paid to the crew of any other nation, which, in itself, should be a reason why the matter of extra wages should be abolished. For example, the average prices paid as wages to the crews of a Danish, Italian, or Norwegian vessel are about as follows, per month:

First officer or mate, \$12 to \$15; second mate, \$10; steward, \$10; seamen, say \$6 to \$7 each, \$42; total for crew of nine men, \$77; while on board an American vessel, with the same number of crew, the average wages paid are about as follows, per month: first officer or mate, \$35 to \$40; second mate, \$25; steward, \$35; seamen, say \$6 to \$15 each, \$90; total for crew, 9 men, \$190.

The foregoing figures show the cost more than double for any American vessel over the vessel of one of the other nations mentioned.

Again, the food supplied to an American crew is usually much better and more wholesome than that furnished to or purchased by the sailors of foreign vessels, which is always of the poorest quality and the cheapest kind, costing in many cases almost nothing. Many of these latter live upon the cargo, when the nature of it will permit. Under all these circumstances, how can any American vessel, with the long list of consular fees, which consuls are compelled by law to collect for every service rendered, be expected to compete with Italian, Austrian, Norwegian, and vessels of other nations, the crews of which work for such small wages and feed themselves?

Another drawback under which an American vessel labors, is that our merchant marine is not governed by laws which protect the sailor, and at the same time properly punish him for offenses he commits almost daily, which would demoralize the service on board of any ship. In my judgment, the laws governing our merchant marine call for important correction and revision in many ways, if we hope to compete with the vessels of the commercial nations of the world.

H. C. MARSTON, *Consul*.

UNITED STATES CONSULATE,  
*Malaga, April 12, 1881.*

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## SPANISH CUSTOM-HOUSE REGULATIONS.

REPORT BY CONSUL MARSTON, OF MALAGA.

Notwithstanding the complicated and stringent custom regulations in all Spanish ports, which renders all foreign vessels liable to be heavily fined for the most trivial errors in their manifests, fewer vessels have incurred fines at this port during the last two years than in any two previous years since the regulations came into operation. This com-

parative exemption from fines is mainly due to the fact that ship-masters, rendered cautious by experience, take greater care to avoid committing clerical errors in their vessels manifests than formerly, for this is the principal cause of those heavy fines being imposed. The very slightest error or mistake in the manifest of a vessel is surely followed by the most unjust and unreasonable fine, nor can any amount of explanation induce a Spanish custom-house collector to remove, or even reduce, a fine once placed upon a foreign ship.

I may here cite an instance which created considerable comment at the time, wherein a French mail steamer touching at Malaga semi-monthly, by a mistake of the collector of customs at the last port at which the steamer had landed, had omitted to declare on the vessel's papers the landing of a certain number of packages of merchandise discharged at that port. The vessel's officials did not discover the omission till she had gone to sea, and on arrival at Malaga the steamer was fined about \$36,000, for payment of which she was detained here five days with the French mails and 60 cabin passengers on board. The vessel was finally released by orders from Madrid, without explanation of any kind. The matter is now in the hands of the French legation at Madrid. But no single government can induce the Spanish authorities to change their indiscriminate method of unjust and arbitrary fines to foreign vessels in Spanish ports for the slightest errors or omissions, but it will require the united action of all the other nations to either have the regulations altered or make them realize the injustice they practice upon others, by an application of the same rules and regulations to Spanish vessels in the ports of the nations who suffer.

H. C. MARSTON, *Consul.*

UNITED STATES CONSULATE,  
Malaga, April 27, 1881.

## MALAGA RAISINS.

### REPORT BY CONSUL MARSTON.

Notwithstanding the neglectful condition of agriculture in Andalusia, and the primitive processes still followed in many ways, the marvelous fertility of the soil impresses the most inattentive and indifferent observer. But among all the natural riches that abound in this luxuriant country, the most worthy of mention are the vines, so justly famous both through the celebrated wines and the delicious raisins, of which Malaga is the principal market for all Europe and the New World.

It will, perhaps, be instructive to make some remarks on the production, preparation, and commerce of the raisins, which seems to me, although of ancient origin, to offer an attraction of novelty.

There are two distinct vines, the muscated and the Pero-Ximenez, the first indigenous, the second imported from the borders of the Rhine two hundred or two hundred and fifty years ago by a German, whose name, corrupted in Andalusia, was given to the vine. Opinions seem divided as to the respective merits of these two vines; some insist that they are equally good, others that the muscated are much the best. I give the decided preference to the muscated. A box of raisins made from the muscated, recently sent to the exposition at Moscow, by a firm of Malaga, contained samples presenting the appearance of large prunes.

The cultivation of the vine requires hard labor. The soil is dug out

around the root, leaving a circular hole about one foot deep, and owing to the firmness of the soil, the digging is very difficult. Manure of great strength is used by many proprietors.

Different from Meridional Italy, where the vine, always clinging to the elm, throws itself from the soil in forms of graceful arbor, as in the time of Horace and of Virgil, in this country it stretches itself over the ground and then gathers all atmospheric heat. Thus, although white, the grape has a golden tint, the skin resisting and slightly tough. The branch appears like a root.

The vintage is conducted with great care; they do not gather all the fruit at one time, but mostly go over the same piece of ground thrice, in order that the grapes may have the necessary ripeness.

There are these different methods of preparing the raisins, viz, washing, drying by steam, and the simple drying in the sun. The drying by steam is more particularly followed in the province of Denia, because of the insufficiency of solar heat. It is also employed in the south in case the season is wet during the vintage.

The cut grapes are put in baskets and carried either on the backs of mules or donkeys or in carts to the places, often distant, where they are prepared, and although they transport the fruit with great care, it suffers naturally; the skin often breaks, which renders the drying difficult, if not impossible.

To dry the grapes by the washing method they construct furnaces of feeble draft, in which wood is used as fuel; a round kettle, varying in capacity from 300 to 400 liters, receives a lye formed from the residue or refuse of the grape after pressing. The lye used is either that obtained from the present year or that which has been kept from the previous vintage.

Placed in wire colanders with long handles, containing 2 or 3 kilograms each, the raisins are plunged in this lye, boiling at a temperature of about 212° Fahr. After this first immersion, the workmen examine if the skins are sufficiently shriveled; if not, they immerse the grapes a second time, usually the last. Thus scalded, the grapes are carried to the drying place, and from thence to the stores where they are packed in boxes. It is not difficult to imagine that the process of immersion is very delicate and requires skillful watching, and great judgment on the part of the workman who conducts it. In reality, according to the quality of the skin, its resistance, which varies with the fruit, the immersion should be more or less rapid, at the risk of having the grapes burst; besides, much skill is necessary to recognize the fissures which may appear. In case when the heat has been too great, the raisins too rich in sugar will mold shortly after being packed. This process offers, among others, the inconvenience of exposing the raisins to fermentation during transportation, necessitates expense for the construction of furnaces, and the necessary last drying in the sun; besides, no matter what grapes employed, or what care bestowed in the preparation, the results will always be relatively inferior.

The method of preparing raisins by steam is as follows: After having been exposed nearly twenty-four hours to the sun's rays, the grapes are carried on boards under cover, to a building arranged with shelves 6 or 7 feet high. A heat is produced by steam that circulates in an iron tube 7 or 8 inches in diameter through the entire building. It is unnecessary to submit the grapes to a jet of steam, which would injure them by making them damp, but to a veritable heat of 160° Fahr. Valves, arranged on the floor, cause an even temperature. At the end of twenty-four hours, usually, the drying is finished, but as the immediate transfer from a tem-

perature of 160° Fahr. to the open air would injure the ultimate result, it is necessary to let raisins cool gradually in a room constructed for the purpose adjoining the heated room, and only when the raisins are entirely cool are they carried to the stores for packing.

This is the process most generally employed in the region of Malaga, a process they are trying to extend to other less-favored climates. The sun furnishes all the heat required; it is enough to construct divisions, of either brick or stone, exposed to its rays, in an inclined position, say 10 yards long and 2 yards wide; the divisions or apartments are built up at one end with a sort of triangular masonry, which from afar gives them the aspect of a range of uniform tombs. The triangle is so constructed that the sun never fails to shine upon the contents, the interior being covered with fine gravel, which attracts the heat. Immediately after gathering, the grapes are placed in these divisions, and are exposed to the heat of the burning Andalusian sun of August. Never, it appears, have they dreamed of ascertaining the heat thus obtained, but the experienced cultivators affirm that, during the heat in August, they attain a temperature of 145° Fahr. At night-fall a very simple method of covering is applied to guard the fruit from the heavy dews or rain, either of sail-cloth or heavy canvas so arranged that it covers entirely the grapes that are drying within, and being supplied with rings on two sides, slides up and down as a curtain at a moment's notice. In many places boards or planks are used, giving the appearance of a roof. During the process of drying they carefully remove the grapes that remain green or spoiled, and they turn each grape in order that they may darken in color uniformly. Competent judges give the preference to this simple method of drying, as much for the results as for the simplicity of the process. The raisins that have been prepared by the scalding process dry in four days, while those dried by the sun take ten days, but this loss of time is largely compensated by the economy of expenditure. The raisins are not ready for packing immediately after being dried, but have to be kept several days in the stores on the planks on which they are carried.

The raisins that are spoiled or defective are picked out, especially any that are broken or bruised, out of which one drop of moisture would be likely to damage a whole box. This has to be done with exceeding great care. Finally they are classified, which is a task exceedingly difficult, as cultivators and merchants differ greatly in their opinions. The merchants nearly always remodel the boxes packed by the producers. In the demands of foreign countries for Malaga raisins each has its particular and special requirements for what may be considered first-class fruit.

For France, raisins may be classified as follows :

Sur-couches, *ordinaire*, sur-couches, choix, sur-choix, royaux, impériaux. The first, which is the most ordinary, is never shipped, except under a fictitious name, the other brands bear the true name of the merchant but rarely the name of the producer.

For England the raisins may be classified as follows :

1st. Finest Dehesa, 3 crowns.

2d. Finest Dehesa, 2 crowns.

3d. Fine Dehesa, 1 crown.

4th. Dehesa.

5th. Choice layers.

London layers (from good to poor).

For the American market the following brands are shipped :

1st. Imperial finest Dehesa layers.

2d. Royal finest Dehesa layers.

3d. Finest Dehesa layers.

4th. Fine Dehesa layers.

5th. Dehesa layers.

6th. London (ordinary) layers.

London, loose, 1, 2, and 3 crowns, the last being in three qualities.

The boxes are mostly made by contract at 75 centimes of a peseta (about 15 cents) each. I think the best boxes are made of fir imported from Portugal. The producer almost always provides the boxes and packs them, but they are always repacked in the towns by the merchants, who usually employ women or girls for this labor. All raisins are packed in boxes, except those shipped in barrels and frails, and are divided into four layers in each whole box, which, if of full size, contains 22 pounds of fruit, the total weight with the box usually being 28 or 29 pounds. The first or top layer is always the finest and largest, being selected with great care. The merchant is obliged to be familiar with the tastes and demands of the country for which the raisins are intended.

Although the United States are the principal buyers they do not purchase the finest quality, almost all the best going to England and France.

For England the layers are not presented in bunches but are all separated from the stem and pressed very tightly down by the lid of the box, which has the effect of making them, in show, a very large raisin.

For France the bunches must be entire; this difference proves that in England the buyers observe the appearance of the fruit, whilst in France they examine very critically, more desirous to assure themselves of the quality rather than appearance. In this regard, and contrary to their usual habit, the English show themselves less practical than the French.

The average cost in Malaga of 100 boxes loose muscated raisins, the staple shipped to the United States for the year 1880, was about—

Raisins (100 boxes).....	\$126.10
Boxes (100 boxes).....	14.55
From holder's warehouse to ship, including examining, marking, cartage, lightering, and nailing (100 boxes).....	5.00
	<hr/>
	\$145.65

In the choicest raisins sent from Malaga, there can be expended in decorations of inside papers from 5 cents to \$1 per box, at the option of the purchaser.

Before closing my report upon raisins, I would allude to a practice which has caused much dissatisfaction between American purchasers and Malaga merchants in the fruit trade, *i. e.*, in the shipping of light-weight boxes of raisins. It has been customary to make the boxes of exceedingly thick wood, which weighed more than the amount allowed for tare. Thus the New York purchasers paid for one or two pounds more of raisins in each box than they received, and great trouble was experienced in consequence. Lately, however, there has been a concerted agreement upon this point, in which the New York buyers have united, and they have issued a circular laying down the rule that all intend to follow hereafter, which is, that all boxes of raisins that do not contain 22 pounds net will not be received, but will be considered unmarketable, and will be sold at public auction for account of shipper.

Under this new rule, fear is expressed by some that wood being scarce and dear in Spain, and not being able to continue to profit out of the thickness of the box, that boxes will be made so thin that they will lack the strength to bear the necessary handling in transportation.

The crop of raisins produced in the Malaga district from the vintage of 1880 and 1881 is estimated at between 2,000,000 and 2,050,000 boxes, not much varying from the previous vintage.

The stock of raisins in the province of Malaga to-day is estimated at about 150,000 boxes, while one year ago it was estimated at only about 50,000 boxes. At the commencement of the present vintage prices ruled about 40 per cent. higher than during the same time the year previous, and since the 1st of January last but few shipments have been made to the United States as compared with same period in 1880.

H. C. MARSTON,  
*Consul.*

UNITED STATES CONSULATE,  
*Malaga, April 27, 1881.*

## PRODUCTS AND EXPORTS OF MALAGA.

REPORT BY CONSUL MARSTON.

### WINES.

The production of wines in the provinces of Malaga for 1880 has amounted to about 50,000 butts of 105 gallons each, of which two-thirds are consumed in the province, and about one-third exported. The crop for 1880 was considered a little short of an average.

The exportation during the year of dry and sweet Malaga wine is estimated in round numbers at about 15,000 butts, of which 10,000 butts were sent to Great Britain and the continent of Europe, and 5,000 butts to South America and the Spanish colonies.

The exportation of Malaga wines to Great Britain is increasing in proportion as that from Jerez is falling off. So much adulterated and inferior wine has of late years been sent to England under the name of sherry that the people are beginning to prefer the pure and, as yet, unsophisticated growth of Malaga. The sweet mountain wine of this province is also used in England for fining and mellowing whiskies.

The exportation of Malaga wines to France is likewise annually increasing. The total quantity of wine sent to that country, from all ports of Spain, during the last three years, has been as follows: 1878, 1,489,000 hectoliters; 1879, 2,352,000 hectoliters; 1880, 5,137,000 hectoliters; showing an increase as remarkable as is the capacity of this country to supply such an enormous demand.

The quantity of wine consumed annually in the town of Malaga is said to exceed 1,500,000 gallons, or about 14,000 butts. These figures will at first sight appear rather high for a population of only 115,000 souls, but to these must be added a large floating population of country people, who daily bring in provisions from the neighboring villages and farms, and which is estimated at about half a million, chiefly men. The crews of all vessels visiting this harbor must also be taken into consideration as large consumers of wine.

### PHYLLOXERA.

The ravages of the phylloxera still continues among the vines in this province, and it is estimated that the damage from this cause to the vintage of 1880 in Malaga would reach a quarter of a million of

boxes. No measures have been taken by the authorities to arrest the progress of this pest; in fact no one appears to know the exact progress it has made since its first appearance in this province. The government, if it possesses any information on this subject, keeps it to itself. It is beyond doubt a fact that it is spreading fast, and is no longer confined to the district east of Malaga, but has already made its appearance in the vega or plain of Malaga itself, where the muscated grape is so extensively cultivated.

#### SUGAR-CANES.

The crop of sugar-cane is estimated at about 70,000,000 kilograms in the province of Malaga, and is calculated to yield 5,750,000 kilograms of sugar. The cultivation of the sugar-cane is a comparatively new industry in this province, and is said to yield very large profits, and will no doubt continue to be highly remunerative so long as the import duties imposed on Cuban and other foreign sugars are maintained.

#### OLIVE OIL.

The total yield of olive oil in Spain is estimated at about 43,000,000 to 44,000,000 arrobas, but as the home consumption of this article absorbs the enormous quantity of about 36,000,000 arrobas, it leaves but about 7,000,000 to 8,000,000 arrobas for exportation. I may add that the city of Malaga alone uses 500 arrobas per diem of olive oil.

The olive crop promised to be one of the largest on record, but the heavy rains in December caused great injury to the yield and reduced it considerably, which, as it is, is generally of bad quality.

Prices of oil direct from the country have ruled from 32 to 34 reals per arroba. Prices for export, including barrels, commission, carting, &c., *f. o. b.*, say at about 40 reals per arroba.

#### LEMONS.

The crop of lemons has been an average one, being estimated at 191,980 boxes, of which 66,832 boxes have gone to the United States during the year 1880, or over one-third of the entire production.

#### ORANGES.

The crop of oranges was not an average crop; it was estimated for 1880 at about 21,440 boxes, of which only 1,993 were exported to the United States. In 1879 the crop was estimated at about 31,235 boxes, or about 10,000 boxes more than in 1880.

#### LICORICE ROOT.

There are several districts in Spain in which licorice root is obtained, and large exports are made from Spanish seaports to the United States. France also consumes large quantities of this root in the manufacture of licorice paste, and probably takes nearly as much as the United States.

This root is used in the United States principally for sweetening in the manufacture of plug and other kinds of tobacco; it is also used in the manufacture of drugs and in the preparation of medicines. It grows wild in the lower lands, in marshy ground, and on the banks of rivers. Probably the best quality obtained in Spain is found in the provinces of

Aragon, Murcia, and Toledo. The very best Spanish licorice root is found near the margin of the Ebro, in Aragon. The next in point of quality is obtained near Cordova. Where it once takes root it is almost impossible to eradicate it. It grows in many countries, and varies in quality according to soil. Spanish licorice differs quite materially in the several provinces, the principal variations being that in some parts the bark is red, brown, or light color, the inside varying from light yellow to brown; the proportions of saccharine and starch vary also. Many kinds are fibrous, while others are almost as hard as wood. The ground is pulled at intervals of three, four, or five years, according to circumstances, by digging trenches, pulling everything visible as long as possible until it breaks. After a year or two it shows above the ground with a little stem; in the spring over this stem there are flowers. From the time this stem appears until the flowers have all fallen this root is not in condition to extract, for the sap does not return to the root until then. Each year, till the ground is culled, the quantity of roots and tops increase, until the ground is unfit for cultivation of any kind.

It is from September till March that the root is gathered, and goes through a process of drying or curing before it is considered marketable.

Licorice root is also found and gathered in Asiatic Turkey, Greece, Italy and the Sicilies, and in Spain. In Italy and the Sicilies very little, if any, is exported as root, it being used in the manufacture of roll or stick licorice. There is a small section in England which produces a limited quantity. The United States also have licorice root in several parts of the country, but the quality is not such as to give it value.

The quality of root produced in the different countries is as follows: Asiatic Turkey, decidedly bitter; Greece, bitter, but not so bitter as Asiatic Turkey; Sicily, sweet, but less so than Spanish; Spain, rich and sweet; Italy, richest and sweetest of all.

Malaga has not, up to the present season, been considered an important shipping port for the root; Seville, Alicante, Barcelona, and Bilbao being nearer the producing districts. It is probable that during the coming year of 1881 there will be some shipments from Malaga.

The value of this root does not admit of its being increased in crop by cultivation, and the quantity gathered depends greatly upon the severity or mildness of the winter. If severe, it lessens the quantity gathered. Again, if other crops are good, labor being scarce, less root is gathered; consequently prices are higher. There are one or two large French establishments in Spain for making paste and stick licorice, one in Seville and the other in Saragossa, besides a few small Spanish concerns also engaged in the manufacture of licorice paste.

H. C. MARSTON, *Consul*.

UNITED STATES CONSULATE,  
Malaga, April 27, 1881.

## AMERICAN SALTED MEATS IN SWITZERLAND.

REPORT, BY CONSUL MASON, OF BASEL, TRANSMITTING THE OFFICIAL CIRCULAR OF THE FEDERAL GOVERNMENT IN RELATION TO THE IMPORT AND INSPECTION OF AMERICAN MEATS.

In dispatch No. 41 of June 4 from this consulate it was reported in substance that the federal sanitary commission of Switzerland, after mature consideration, had decided that the facts in evidence did not warrant the prohibition of salted meat imports from the United States

to Switzerland, nor justify any compulsory official inspection of such meats after their arrival in this country as a precaution against danger from trichinæ.

I have the honor to now submit a copy (with translation) of the official circular in which the President of the Swiss Confederation conveys this decision, with the reasons therefor, to the several cantonal governments.

This circular is of great value and interest to the pending discussion of the question of American meats in foreign markets, first, because it embodies the deliberate conclusions of a committee of able and experienced men who have had access to all important facts pertaining to the subject; and, secondly, because the reasons for their conclusions are clearly and definitely stated upon the absolute merits of the case itself as a question of sanitary policy uninfluenced by any covert motives of retaliation or merely economic expediency.

It will be observed that the commission finds that American pork, like that produced in other countries, is subject to trichinosis infection, the percentage of American meats thus infected being rather above that of the pork produced in European countries; but it also finds that the process of salting and curing, as applied to pork imported from the United States, destroys the vitality of the parasite, and is nearly a practical protection against danger from that source, and it adds that this protection is rendered absolute when the meat is cooked at a temperature equal to or exceeding that of boiling water.

But the circular dissents sharply from current opinion when it asserts, and apparently with excellent reason, that no official inspection of meats can be sufficiently searching to be practically effective, since it is impossible to examine minutely every part of each piece of meat offered for sale, and thereby detect the eggs of the *trichinæ spiralis*, which, in the case of salted meats, are the only possible source of danger to human health. These eggs are less sensitive to the effects of salt and smoke than the matured parasites, but all are with equal certainty destroyed by adequate cooking, upon which the Swiss people are instructed to depend in future, as they have so safely done in the past, for immunity from all dangers, real and imaginary, of trichinosis. As collateral with this highly gratifying action by the Swiss Government, and in order to allay more fully the popular suspicions and prejudices against American meats which have been awakened by the events of the past few months, the undersigned has translated and published in certain prominent journals of Switzerland the circular issued by the Department of State through the American press on the 16th of May, describing the care with which the pork exported from the United States is grown, fattened, and prepared for markets. A copy of this circular as it appeared in the *Berner Bund*, the official organ of the Swiss Federal Government, is herewith inclosed.

Under the present favorable conditions it is reasonable to expect that the consumption of American meats in this country, which has been seriously checked by the discussions and agitation of the past four months, will soon resume its former proportions and steadily increase.

FRANK H. MASON,  
Consul.

UNITED STATES CONSULATE,  
Basle, June 13, 1881.

## CIRCULAR.

[Translation.]

BERNE, June 3, 1881.

*The Federal Council to all the Cantonal Governments:*

FAITHFUL AND DEAR CONFEDERATES: The spontaneous interdiction of the importation of American pork by France has attracted attention in other countries to the dangers which may follow the consumption of those meats as human food. In Switzerland these apprehensions were expressed in a motion introduced by Deputy Estopey in the Federal Senate.

Under the authority of this motion we have felt constrained to make a thorough examination of the entire subject. The result of this investigation and the teachings of obvious facts and experience do not justify an interdiction of American pork nor an obligatory inspection of those meats as a precaution against trichina.

The various examinations which have been made establish the fact without doubt that traces of trichina are found more frequently in American pork than in that of European origin, even more than in the meats from Northern Germany.

The number of trichinosis pieces revealed by these experiments has ranged from 1 to 2½ per cent. of the whole number inspected. For Europe, including Switzerland, the consumption of these meats is considerable; nevertheless, in spite of the quantities of trichinae which have been shown to exist, the cases of actual injury to the public health have been very rare. The few cases of trichinosis which have occurred in Switzerland cannot be attributed to American meat. In other countries the cases of trichinosis are rare and the origin of the causes to a great extent disputed. This extraordinary result is explained by the now recognized fact that in the preparation of these meats by strong salting the trichina are for the most part destroyed. Living trichina have but rarely been detected in salted meats; at Basle, for instance, never; and numerous experiments in feeding trichinosis salted meats to animals have all shown negative results (*i. e.*, no infection was created). Moreover, in Switzerland, it is customary to entirely obviate all possible danger by eating pork only in a *cooked* condition.

In consequence of these facts, we have found no reason to interdict the importation of an article of food which has caused no unpleasant consequences among our people and but few in other countries, and which, by virtue of its cheapness, exercises an influence on the prices of home-bred meats, which is highly valuable to the public. On the other hand, the utility of a special inspection on account of trichina is by no means demonstrated. In Northern Germany, where extensive inspections take place, trichinosis still prevails. Even a thorough examination of certain parts of a hog does not prove conclusively that no trichina exists in other parts of the same animal. It is probably due to this fact that the flesh of some hogs which have been officially inspected and declared free from trichina has afterwards, on being eaten, caused trichinosis.

The easiest and only effective way to avoid all danger is, therefore, to cook thoroughly the meat before it is eaten, and this is all the more necessary because pork from other countries as well as America is liable to contain trichina. The few cases of trichinosis in Switzerland have been caused by the meat of hogs raised in this country, and as the importation of living swine is an important traffic, there is a constant liability of importing animals already infected with trichina.

We urge you, therefore, to inform the people of your canton in the most effectual manner that American pork, imported in part by local dealers, is largely consumed in Switzerland, and the consumption of these meats as well as of pork in general is attended with possible danger unless it is thoroughly cooked before being eaten.

As to the cooking, we find that a temperature of 60° does not secure absolute safety, but that in order to surely destroy the parasites which may be in the interior of the pieces a temperature equal to that of boiling water is required.

We embrace this occasion, faithful and cherished confederates, to commend you with ourselves to Divine protection!

In the name of the Federal Council of Switzerland.

The President of the Confederation:

DROZ.

The Chancellor of the Confederation:

SCHIESS.

# **SWISS EMIGRATION TO THE UNITED STATES.**

*REPORT BY MR. FISH, CHARGÉ D'AFFAIRES AT BERNE.*

I have the honor to inclose herewith a statement published by the Swiss Bureau of Statistics concerning emigration of Swiss citizens during the year 1880, compared with 1879.

The total number of emigrants was 7,255, as compared with 4,288 in 1879. The ratio of emigrants to the population is 2.75 per thousand, as compared with 1.63 per thousand in 1879; the destination of 5,792 is given as North America, as compared with 2,964 in 1879, an increase of 2,828.

It is noticeable that the greatest ratio of emigration to population exists in the cantons of Glaris (12.42 per thousand) and Schaffhausen (11.02 per thousand), the cantons which, according to Mr. Niederer, are most addicted to furnishing subsidies "to permit the indigent to emigrate." In the canton of Schwyz, where we know that the town of Gersau furnished subsidies to 29 persons to emigrate, the ratio is 6.15 per thousand; in Argovie it is 4.11; in Tessin it is 5.69, a decrease from the preceding year, but the emigration to North America from that canton has increased; in Oberwalden, the ratio is 3.02 per thousand; in Soleure, whence Theodore Meier came, it is 4.86; in Thurgovie it is 1.42; in Zug it is 1.87, and the number of emigrants (41) from that canton to the United States is greater than during the ten preceding years. Whether this is due to the subsidy voted by the town of Zug I am unable to say. In Valais, the ratio is 1.70 per thousand. In Zurich, the ratio is 1.86.

I mention these cantons as showing a marked increase in emigration as being those in which the communes are given to assisting emigrants, or as having sent us objectionable emigrants, such as Meier, Trachsler, and Ruegger. Respecting the emigration from them I compile from the inclosure the following table:

Cantons.	1879.		1880.		
	Total number of emigrants.	To North America.	Total number of emigrants.	To North America.	Increase to North America.
Glaris .....	191	166	412	403	237
Schaffhausen .....	104	97	375	361	264
Argovie .....	359	289	795	688	399
Tessin .....	667	271	628	296	25
Oberwalden .....	32	23	46	27	4
Zug .....			41	41	41
Thurgovie .....	78	56	131	122	66
Valais .....	84	14	165	37	23
Soleure .....	221	130	380	316	186
Schwyz .....	87	66	299	244	158
Zurich .....	248	192	540	445	253
Total .....	2,071	1,324	3,812	2,980	1,656

The increase in emigration from these eleven cantons is 1,741, of which we (North America) received 1,656, or over 78 per cent. of the entire emigration. When we consider the dangers to which assisted emigration from those cantons expose us, it is gratifying to find that a still larger proportion of Swiss emigrants from other cantons emigrated to North America, so that the proportion throughout Switzerland was 79.8 per cent.

The emigration for 1881 will reach to about double what it was in 1880, and the emigrants as a rule are of a good class of industrious people, some of them taking with them considerable sums of money. It is needless to say that such people do not require, and as a rule do not receive, assistance from their communes.

NICHOLAS FISH,  
*Chargé d'Affaires.*

UNITED STATES LEGATION,  
*Berne, May 9, 1881.*

CROP PROSPECTS IN GERMANY.

REPORT BY CONSUL GRINNELL, OF BREMEN.

I have the honor to inclose herein a table of the crop prospects for Prussia, which, excepting Bavaria, Wurtemberg, and Baden, comprises substantially the agricultural area of the German Empire, prepared by order of the minister of agriculture at the end of June last past.

WILLIAM F. GRINNELL,  
*Consul.*

UNITED STATES CONSULATE,  
*Bremen, July, 1881.*

HARVEST PROSPECTS IN GERMANY.

Table showing the estimated harvest in Prussia at the end of June, 1881, made by the heads of the several districts by order of, and reported to, the Royal Prussian minister of agriculture.

[The estimates are given in fractions, 100 equaling an average harvest.]

	Wheat.	Rye.	Barley.	Oats.	Leguminous plants.	Potatoes.	Rape seed.	Clover hay.	Meadow hay.
In the state (Prussia entirely).....	80.0	77.0	89.0	89.0	83.0	95.0	70.0	63.0	69.0
In the Provinces of—									
East Prussia.....	79.0	75.0	90.0	90.0	85.0	93.5	72.0	66.5	66.0
West Prussia.....	71.5	75.5	92.5	89.5	87.5	93.5	47.0	55.5	61.5
Berlin.....		80.0	90.0	95.0				75.0	70.0
Brandenberg.....	83.0	80.5	86.5	84.0	72.0		69.0	61.0	67.0
Pomerania.....	76.0	61.0	88.0	90.0	84.0	96.0	61.0	43.0	55.0
Posen.....	83.0	79.0	88.5	87.5	80.0	95.5	56.5	58.5	71.5
Silesia.....	86.0	84.0	93.0	92.0	88.0	93.0	89.0	79.0	86.0
Saxony.....	82.0	77.0	89.0	88.0	79.0	91.0	73.0	67.0	70.0
Schleswick-Holstein.....	61.0	73.0	94.0	94.0	95.0	97.0	68.0	61.0	65.0
Hanover.....	78.0	62.0	83.0	85.0	79.0	96.0	72.0	57.0	62.0
Westphalia.....	83.0	73.0	84.0	85.0	77.0	99.0	81.0	59.0	63.0
Hesse Nassau.....	76.5	81.5	86.0	86.5	85.5	96.5	66.5	57.5	72.0
Rhineland.....	81.0	81.0	81.0	88.0	78.0	99.0	64.0	62.6	72.0
Hohenzollern.....	98.0	97.0	59.0	91.0	83.0	95.0	96.0	78.0	85.0

Table showing the estimated harvest in Prussia at the end of June, 1881, &c.—Continued.

	Wheat.	Rye.	Barley.	Oats.	Leguminous plants.	Potatoes.	Rape seed.	Clover hay.	Meadow hay.
In the government district of—									
Konigsberg .....	80.0	70.0	89.0	90.0	87.0	93.0	77.0	72.0	68.0
Gumbinnen .....	78.0	80.0	91.0	90.0	83.0	94.0	67.0	61.0	64.0
Dantsic .....	71.0	72.0	93.0	88.0	87.0	91.0	46.0	55.0	62.0
Marienwerder .....	72.0	79.0	92.0	91.0	88.0	96.0	48.0	56.0	61.0
Potsdam .....	81.0	75.0	84.0	78.0	62.0	.....	62.0	49.0	57.0
Frankfort .....	85.0	86.0	89.0	90.0	82.0	.....	76.0	63.0	77.0
Stettin .....	78.0	68.0	92.0	96.0	93.0	97.0	67.0	43.0	57.0
Koslin .....	81.0	58.0	88.0	88.0	85.0	95.0	81.0	50.0	53.0
Stralsund .....	68.0	58.0	85.0	86.0	75.0	95.0	12.0	36.0	55.0
Posen .....	80.0	85.0	89.0	91.0	82.0	95.0	68.0	64.0	74.0
Bromberg .....	77.0	73.0	88.0	84.0	78.0	96.0	45.0	53.0	69.0
Breslau .....	87.0	87.0	96.0	96.0	92.0	95.0	94.0	83.0	90.0
Liegnitz .....	86.0	78.0	89.0	84.0	83.0	92.0	83.0	77.0	84.0
Oppeln .....	86.0	86.0	93.0	97.0	89.0	93.0	89.0	78.0	84.0
Magdeburg .....	81.0	84.0	86.0	86.0	85.0	95.0	68.0	62.0	61.0
Meresburg .....	92.0	85.0	101.0	98.0	83.0	94.0	91.0	91.0	91.0
Erfurt .....	73.0	61.0	80.0	79.0	68.0	83.0	59.0	48.0	58.0
Schleswig .....	61.0	73.0	94.0	94.0	95.0	97.0	68.0	61.0	65.0
Hanover .....	80.0	72.0	89.0	93.0	83.0	100.0	85.0	66.0	64.0
Hildesheim .....	83.0	67.0	92.0	87.0	70.0	95.0	80.0	59.0	60.0
Limeberg .....	87.0	68.0	74.0	79.0	73.0	100.0	60.0	50.0	65.0
Stade .....	59.0	49.0	81.0	85.0	84.0	96.0	58.0	50.0	55.0
Osnabruck .....	85.0	61.0	95.0	80.0	82.0	94.0	91.0	57.0	58.0
Aurich .....	84.0	57.0	87.0	97.0	83.0	88.0	60.0	69.0	72.0
Munster .....	85.0	68.0	85.0	77.0	79.0	101.0	80.0	56.0	65.0
Minden .....	82.0	75.0	91.0	89.0	81.0	93.0	86.0	57.0	61.0
Arnsberg .....	83.0	75.0	86.0	87.0	72.0	103.0	76.0	63.0	64.0
Cassel .....	78.0	76.0	81.0	83.0	78.0	94.0	60.0	58.0	60.0
Wiesbaden .....	75.0	87.0	91.0	90.0	93.0	99.0	73.0	57.0	85.0
Coblenz .....	87.0	89.0	86.0	89.0	81.0	102.0	70.0	73.0	77.0
Dusseldorf .....	84.0	72.0	86.0	87.0	88.0	97.0	72.0	63.0	69.0
Cologne .....	72.0	81.0	77.0	83.0	66.0	96.0	49.0	55.0	61.0
Trier .....	80.0	89.0	80.0	83.0	69.0	95.0	68.0	57.0	70.0
Aix-la-Chapelle .....	81.0	73.0	76.0	96.0	84.0	93.0	61.0	62.0	84.0
Sigmaringen .....	98.0	97.0	95.0	91.0	83.0	95.0	96.0	78.0	85.0

## AMERICAN FLOUR AT DARDANELLES.

### REPORT OF AGENT CALVERT.

The principal article of American produce that might be introduced in this market is flour. A rough estimate of a rapidly increasing trade, commenced eighteen months ago, shows that 35,000 sacks of flour, of 200 pounds each, were imported from Galatz, Odessa, and Marseilles during the last twelve months. My suggestion to the importers to try American flour was met with the objection of ignorance as to quality, price, and facility of transport. They were willing, however, to take up the business if it could be shown that the plan was feasible and profitable. To obtain the requisite information, I wrote to the different houses in the States who had sent me their address, with a view to open up trade, and requested samples should be sent by post. At the same time I named the steam companies that would take goods at through rates for this port, so that the rate of freight might be ascertained and a pro forma invoice made out. One letter only was received in reply, and this was to the effect that the qualities of American flour were known at Constantinople, where information might be obtained. A price current accompanied this letter.

It is not in my province to make these vague inquiries, nor will the importers go out of their way to move in the matter. In these days of sharp competition there is no chance of doing business without taking some trouble.

The attempt has been so discouraging that it is clear, unless some practical ideas are entertained by our home dealers, the importation of American produce in general can make no progress in this market.

FRANK CALVERT,  
*Consular Agent.*

UNITED STATES CONSULAR AGENCY,  
*Dardanelles, June 22, 1881.*

## TURKISH INTERNAL COMMERCE AND TRANSPORTATION.

REPORT BY CONSUL-GENERAL HEAP, OF CONSTANTINOPLE.

### PRESENT CONDITION OF TURKEY.

The external difficulties and domestic disasters that have accumulated upon Turkey since the close of the war with Russia are sapping her resources, and are gradually drying up every element of wealth upon which she might have relied to restore her to some degree of her former prosperity. Her commerce grows yearly less, and the revenues of the government are diminishing in an inverse ratio to its expenditure. Recourse is had to ruinous expedients to supply day by day the enormous drain occasioned by the threatening attitude of Greece and Albania, and to face the disquieting ambition of the autonomous provinces in Europe that are watching with ill-concealed impatience for the opportunity to assert their independence.

A picture of the political state of this empire would be out of place in a commercial report, except as it may go to show how the country has fatally drifted from an important position in the markets of the world to a condition bordering on anarchy in some provinces, and of poverty and misery in all. The only provinces that are really recovering in some degree from the desolation of the late war are Bulgaria and Eastern Roumelia, which suffered the most from its effects, but are now freed from the upas-blight of pachalik misrule.

In Armenia, Turkey's richest Asiatic province, inhabited by antagonistic races—the Christian, Armenian, and the Mahometan Kurd—an absolute famine has prevailed for the last two years, which has had but scant relief from the contributions, generous as they were, sent from every part of the civilized world. The sober, hardworking, and frugal, but timid, Armenians have fallen an easy prey to their truculent, rapacious neighbors, the Kurds, who, driven by want, first ravaged the possessions of the Christians, and, when these were exhausted, made inroads into Persia, in such force as to tax the military resources of that kingdom to check their advance.

A formidable plague of locusts again threatens to devastate the rich plains of Asia Minor and complete the misery of the two years famine. The appalling calamity which has wrecked the fairest island in the archipelago was preceded by a fire which destroyed Treboli, one of the rising ports of the Black Sea. The terrible pestilence which has made its appearance on the banks of the Euphrates has caused desolation among the nomad tribes that roam over the grassy plains of Mesopotamia. In Syria agitation prevails among the Druses and the Maronites, with whom, at the first clash of arms, a conflict is imminent. There are dangerous elements fermenting in Crete, Bulgaria, and Roumelia, and open insurrection is declared in Albania. The Kurds are again menacing Persia

with invasion, and they may involve the empire in untoward complications with that kingdom.

But, even worse and more afflicting still, is the maladministration and venality that prevail in every department of the government. Long arrears of pay are due to all the employés except the foreigners who have entered the service under contract, and even among these there are many who find that their most onerous duty is to obtain their salaries. The Porte engaged them to please foreign governments and to exhibit an intention of undertaking reforms, but many are still without employment. To remedy this state of affairs, the revenues of two of the most productive provinces were set aside for the payment of the employés of the government departments. The rejoicing in the public offices was great, but short-lived, for it was soon discovered that these revenues were already pledged for loans and could not be touched.

#### INTERNAL TRADE AND TRANSPORTATION.

As stated in previous reports, the general want of facilities for internal communication and the mountainous character of the country in Asia Minor are serious obstructions to commerce. Goods of value and small bulk, if they can stand rough handling, can afford the cost of transportation for long distances on horses, mules, camels, and buffalo carts, but those that are bulky and low-priced or fragile cannot bear the expense or risk of damage on long journeys. There are no navigable rivers except the Euphrates, and even such facilities as this stream affords are neutralized by the vexatious exactions of the authorities and the predatory character of the tribes that inhabit its banks. The facilities for internal traffic in Asiatic Turkey have probably not improved much since the days of the patriarchs. Every man who values his life or the safety of his goods must go with an armed escort, and even then he is frequently unable to prevent pillage. In Armenia the famine and the depredations of the Kurds have rendered the insecurity of trading so great as practically to put a stop to it. The goods sent from the United States are principally petroleum, spirits, and some cotton goods. Petroleum cannot be transported to any considerable distance on pack-animals or ox-carts without loss by leakage; its use is therefore virtually confined to the sea-board, whilst with economical transportation, it would be in large demand over vast regions in the interior where no such cheap lighting fluid is found.

Before a profitable trade can be established with Turkey in Asia money must be put in it. Goods cannot be sold to a people who have nothing to give in exchange, nor the means to make money. To enable them to buy they should be enabled to produce and sell. It is true that they produce to a limited extent, but they are quite unable to sell their surplus produce in consequence of the expense and insecurity of transportation to a market. When they have produced what may be sufficient for their simple wants, and to pay their taxes, they make no further effort, for all labor over and above what is required to obtain these ends is labor lost to them.

The government is not blind to these facts, for even if their own intelligence or experience has not enlightened them, there have not been wanting those to point out to them the utter ruin this policy of exclusion of all useful enterprise is entailing. Numerous projects for railroads and other public works have been presented to the Porte on terms that could not be considered onerous to the government. The projectors of these works were dallied with for years and constantly fed with the

hope that their projects were on the eve of acceptance. After their patience and purses were exhausted in supplying the inevitable backshish, they have left, execrating the country and its ruling classes. The demand for a concession is a boon to the scantily and rarely paid employé of a public office, and the projector of a railroad is looked upon as a pigeon who voluntarily offers himself to be plucked—an offer that is greedily availed of as long as he has a feather left.

In the course of a recent conversation between the prime minister and some of the leading bankers of Constantinople, his highness remarked :

I quite understand that European capitalists are frightened away from here, since every offer based on concessions of an industrial nature is rejected. I myself have always seen clearly that the regeneration of Turkey is bound up with two conditions, peace and productive labor. But there are elements at work stronger than I. Whenever I support a petition for a concession, I notice that I am suspected of having been bribed, and important local reforms cease to be recommended, because one does not care to be suspected of being subject to foreign influence. I find the same hindrances in the arrangement of political questions. When ignorant eunuchs obtain a voice in the state councils ministers cannot govern. If the questions of the day are not settled in a peaceful manner I shall not be to blame.

These remarks show that no enterprise, however beneficial it may promise to be to the country, has a chance of encouragement unless it is preceded, presented, and followed by bribery.

That there is an immense field for the profitable employment of capital in Turkey, there can be no doubt, but the question is whether the government is fully awake to the capabilities of the country, or whether it is not hampered by prejudices and fears on the one hand and by greed on the other, as to find itself powerless to engage in useful and practical measures. Turkey has vast recuperative powers if she knew how to seize her present opportunity. An article in the London Times of the 16th of April, of which I give the following extract, exhibits very clearly the present condition of this empire. The article says :

The difficulties and dangers which beset the Turkish Empire no longer spring so much from the ambition of neighboring powers or the discontent of oppressed nationalities as from the irresistible march of events. In what remains of European Turkey the population is very much mixed in religion and race, while in Asia the Christians are in a very small minority. Thus the Turkish Empire is now practically, and with few exceptions, a Mahometan Government ruling a Mahometan population, and the pressure to be exerted in future by Europe on the Porte will no longer be actuated by special sympathies of religion or of race, so much as by the general interests of humanity and civilization. If Europe is urgent in demanding administrative reform in Turkey it is not from any theological intolerance of Mahometan rule as such, but because the Turkish Government is inefficient and corrupt. The Sultan's power is still great and his spiritual supremacy is uncontested both within his dominions and outside them, but his civil government needs purification and reform. We cannot get rid of the Turk even if we wished to do so, but Europe has the right in her own paramount interests which are those of humanity at large, to exhort him to become a little less intractable and impossible. If he will only consent to do this Europe will gladly cease from exhortation and afford him material assistance. On condition of Turkey entering the ranks of civilized governments a rain of western capital with its fructifying help will descend upon the empire and tend to restore its prosperity. Such a condition, no doubt, is hard to be fulfilled, but to pronounce it hopeless and impossible is surely even yet premature. All that can be said is that Turkey now has another chance of entering on the path of regeneration.

Will Turkey awaken to the danger of the situation? She cannot remain stationary. Her entire policy must be changed if she hopes to invite confidence. The present danger is the entire want of confidence in her, and this distrust prevents the inflow of capital, without which she will slowly but surely perish. Day by day we witness the gradual diminution of industry and production; we see on every side a desire to secure all that can be saved from the general wreck; the bonds of

society are loosened and the law is becoming powerless; brigandage, anarchy, and poverty are spreading in every direction. The outlook is gloomy, for it cannot be expected that the country will be regenerated by the same men that brought her to this pass. Unless the Ottoman Empire becomes strong and prosperous, there will be no feeling in Europe in favor of its preservation. There is, strange as it may appear, a feeling among many of the ruling class that they would prefer the country to perish than to owe its deliverance to the infidel powers of Europe. They believe that this is a season of trial and probation, and that if they are steadfast and true to their creed and traditions a sun of power and glory will arise to shed its beneficent rays over Islam, and restore it to greater prosperity and strength than ever. Others, and these are the most numerous, look with utter despondency on the future, and bow submissively to that which is written in the book of fate and cannot be avoided.

Previous to the Crimean war the riches of Asia Minor were very great. The town of Amasia alone produced annually more than 60,000 pounds of silk, which was taken principally by Switzerland. The provinces of Amasia and Tchorum produced 100,000 tons of wheat, of which a considerable part went to Europe, and yet there were large tracts of land left uncultivated. The valley of the Hermes, Meander, and Caicus furnished rice, olive oil, and cereals of every kind. The large market of Sukoi was the depot from which was sent to the different Syrian ports for exportation to Europe over 4,500 tons of different kinds of grain. The valley of the Caicus sent annually to Europe 15,000,000 gallons of olive oil. A dozen mines of copper and silver were worked by the natives, who, although they lost through their ignorance of metallurgy over 50 per cent. in the reduction of the ores, obtained rich returns. Salt, lignite, valonia, ship timber, hides, essences, wax, butter, and fruits of every kind contributed to the riches of this country.

From this it may be seen what riches existed in Asia Minor, and what this portion of the empire alone might be made to produce if a part only of the reforms which Europe has urged with such persistence and Turkey has promised were adopted. No reform, however, among the many proposed is of such immediate necessity as the improvement of the means of internal communication and transportation.

#### RAILROADS.

##### *In Europe.*

The following are the railroads in operation in European Turkey :

#### THE "ORIENTAL RAILWAYS COMPANY."

	Milca.
Constantinople and Bellova.....	351
Adrianople and Dedeagatch.....	92
Salonica and Mitrovitza.....	226
Adrianople and Yamboli.....	115
Banialuka and Doberlin.....	64
Varna and Rustchuk.....	140
Total.....	988

The line from Constantinople to Bellova works only as far as Sarem-bey. The Banialuka-Doberlin line has been discontinued since 1878. These lines are under one corporation, the Oriental Railways Company (formerly the Roumelian Railway), and have been opened for traffic

since 1875. The capital of the company is 792,000,000 francs, nominal, in 1,980,000 shares, of 400 francs each, nominal. The shares were sold at 180 francs and are now quoted at 59 francs. The cost of construction was contracted with the Ottoman Government by Baron Hirsch, President of the Oriental Railways Company, at 288,000 francs per mile. These lines are now owned by an Austrian company.

### *In Asia.*

The Ottoman Railway, from Smyrna to Aïdin, 81 miles, with a branch to Boudja, 1½ miles, and one to Sevdikieni, 1 mile. This line is being extended from Aïdin to Sevdikiui, a distance of about 38 miles. The cost of construction of this line was £2,133,335 6s. 7d., and the capital is £2,434,000. The company is English.

The Smyrna and Cassaba Railway, 58 miles, with an extension to Alasheir, 47 miles, opened in 1866 and 1875, respectively, and a branch to Bournabat of 3 miles. This is also an English company.

The Scutari and Ismidt Railway, opened in 1873, 57 miles, with a branch to Fener Baghtché of 2½ miles. This line was constructed under the superintendence of the ministry of public works, and belongs to and is worked for account of the Ottoman Government. I have not been able to get the cost of these two last roads.

### TRAMWAYS.

Tramways (city horse railroads), the first in Turkey, were opened in 1871. The lines are short, viz, from Galata, near the shore line of the Bosphorus, to Ortakieni, a distance of about 5 miles.

Shortly after the opening of the Galata-Ortakieni line a line was opened on the Stamboul side of the Golden Horn, extending from Emin-Onou to Ak Seraï, with a branch from Ak Seraï to Top Capou, and another from Vlauga to Yedikouleh ("Seven Towers"), outside the walls, a length altogether of about 8½ miles in all.

The shares of the tramway company, which originally cost 8 Turkish pounds (\$34.40), and at one time were selling at upwards of 20 Turkish pounds (\$86), are now worth only about 3.20 Turkish pounds (\$13.76).

By an underground railway or tunnel passengers are conveyed in carriages from Galata to Pera, and *vice versa*, a distance of 563 yards, in about three minutes.

G. H. HEAP,  
*Consul General.*

UNITED STATES CONSULATE-GENERAL,  
*Constantinople, July 1, 1881.*

## PRINCIPAL EXPORTS OF TURKEY.

REPORT BY CONSUL-GENERAL HEAP, OF CONSTANTINOPLE.

Only those who have attempted to gather information respecting the trade of Turkey can form an idea of the difficulties that exist in the way of obtaining even approximately correct particulars or accounts showing its nature and extent. If any official statistics exist they are not available to the public. Besides, few persons, if any, keep records of the business transactions passing under their notice. On the other hand,

both government officials and commercial men always seem disinclined to furnish the information in their possession from which statistics might be compiled by others.

For these and similar reasons it has been found impossible to gather sufficient information of a trustworthy character to show a full and correct outline even of the trade and commerce of Turkey at the present day. The following accounts may, however, supply a basis for estimating what certain branches of trade are likely to be in the few places mentioned, and in others of less importance, that are not. Although they may not be entirely correct, they have been gathered with great care from various sources, which are believed to be reliable and well informed.

#### GRAIN.

Although grain might be grown in abundance and with profit in almost every province in Turkey, its cultivation is in many of them more or less neglected in favor of more profitable crops, such as fruits, tobacco, silk, &c.

From the commencement of hostilities with Russia, in 1877, there has been a more decided diminution in the cultivation and exportation of grains from this country, owing to many of the peasants having been driven into the cities, and to the neglect suffered by agriculture during the invasion, and the loss and damage then sustained in animals and plant by the land-holders through the war operations and their subsequent disastrous results.

Since the Russians evacuated the country the greater part of the grain exported has been produced in Bulgaria and Eastern Roumelia, and sent thence via Constantinople, Dedéagatch, or Salonica to Mediterranean ports, or to England. The value of the grain so exported is roughly estimated at about £2,500,000.

On a still smaller scale certain districts in the provinces of Anatolia and Caramania and Syria have exported more or less to the same destination, despite the scarcity that long prevailed in the inland quarters of the first of the above-named provinces, and the attempted restrictions of the Turkish Government there and elsewhere.

From the districts of Samsoun and Trebizond different grains—principally wheat and Indian corn—were exported, of a value of about £410,000. From that of Adana the exports—mostly of wheat and barley—amounted in value to about £337,500. From the coast of Syria grains valued at about £210,000 were shipped. Including transshipments Constantinople exported about 2,000,000 bushels, principally to England and France.

The shipments for Rodosto and the Marmora ports are small, but from Dedéagatch they amounted to about £20,000, notwithstanding the restrictions exercised in Bulgaria prohibiting the export into Roumelia during a considerable period.

From Salonica and district about 2,000,000 bushels wheat and Indian corn (3,800 tons of the latter), besides about 2,000 tons rye and the same quantity of oats, were exported—principally to Marseilles—the prices of which were about 15 francs for wheat, 13½ francs for Indian corn, 19½ francs for rye, and 17 francs for oats per kintal (123½ pounds).

On the other hand, about 2,640,000 bags of flour were imported into Constantinople, mostly from Roumania and Russia, for the use of the inhabitants and the supply of the troops and navy, and about 2,640,000 bushels of grain for the local mills, besides what came in by rail from the interior (from the Adrianople district) for local consumption.

*Prices.*

*Wheat.*—Adrianople and Rodosto (57 to 60 pounds), \$1.03; Samsoun (55 to 58 pounds), and Bourgas (57 to 59 pounds), \$1 to \$1.02.

*Barley.*—Roumelian (44 pounds), 47 to 51 cents; Aïdau (46 pounds), 55 to 59 cents.

*Indian corn.*—Fifty-one to 59 cents.

*Flour.*—Odessa, \$2.58 to \$6 per bag (165 pounds); Galatz, \$4.78 to \$4.82 per bag (165 pounds); local mills, \$4.61 to \$4.91 per bag (165 pounds), payable in gold or equivalents.

*Beans.*—From Trebizond and Samsoun about 770,000 pounds haricots, &c., were exported mostly to Marseilles, of a value of about \$4,350. The freight from Trebizond to Marseilles was about 3 francs per 100 bushels.

*Canary seed.*—During the last year Rodosto exported to France and England 30,000 bushels canary seed, valued at about £10,000; price \$1.57 to \$1.70 per kilogram (1 bushel). From the districts of Dedéagatch and Enos about 25,000 pounds are annually exported.

*Dari* (species of millet).—About 400,000 pounds are annually exported, principally from Smyrna, Constantinople, Adalia, &c., valued at about £55,000. Prices vary from 52 to 86 cents per bushel.

*Sesame.*—Smyrna and Constantinople are the principal markets for this seed. The total quantity produced annually is about 3,750,000 pounds, which is worth for winnowed  $3\frac{3}{4}$  cents per pound, and for screened  $4\frac{1}{4}$  cents per pound. It is exported principally to France and England.

*Locust beans.*—These are grown extensively in the island of Candia, whence they are sent largely to Russia and partly to France and England. The demand export amounts to about 63,000 kintals ( $123\frac{1}{2}$  pounds each), worth about 655,000 francs. Shipments are made from two or three other places, but not to any noteworthy extent.

## ONIONS.

Of onions, 8,250,000 pounds were exported last year from Rodosto, mostly to France and England, and about 2,200,000 pounds of seed onions. The former cost about \$68,000 and the latter \$54,545.

## GRAY PEASE (POIS CHICHE).

Smyrna and the adjoining districts export annually about 2,750,000 pounds of gray pease, which are worth from  $2\frac{3}{4}$  to 3 cents per pound, and are shipped principally to Portugal and Spain; also to France and England.

## BEANS.

Beans of various kinds, to the extent of about 19,250,000 pounds, are annually exported from Smyrna and the adjoining districts, principally to Portugal and Spain, and are worth something less than 2 cents per pound.

## WOOL.

This is an important article of export, the wool of Turkey being justly esteemed for its excellent quality. The best comes from the province of Adrianople, the second from Angora. The wool produced in the neighborhood of Constantinople is known in the trade as *Cassap-bashi*, and

averages annually about 1,000,000 pounds. Much of this is used here in the factories of the government, but the most of it is exported to England and France and some to Germany.

The following are the quantities and prices for 1880:

Adrianople: 6,000 bales (about 280 pounds each), at 12.3 cents per pound in grease.

Angora: 4,000 bales (about 280 pounds each), at 10.2 cents per pound in grease, 19 cents per pound washed.

Cassap-bashi: 8,000 bales (about 280 pounds each); average price, 14.1 cents per pound; first and second, white, 49.18 cents; black and gray, 49.18 cents; third, white and black, 16.39 cents.

Varna and Kustendje, of which Constantinople is still the market: 1,200 bales, at 12.3 cents per pound in grease.

Roumelia (Këwurjisik): 4,000 bales, at 10.3 cents per pound in grease.

Totals, 38,000 bales, 10,640,000 pounds, worth \$129,000 about.

Last year the exports from Smyrna were 6,240 bales, valued at \$444,468, chiefly to the United States, England, and France. Shipments are also made from other places on the coast of Caramania to the value of about \$875,000, mostly to France. From Dedéagatch about \$30,000 worth is exported, and a like quantity from Salonica and Volo. These give altogether a total of \$1,538,965. The export duty levied on wool is at the rate of 8 per cent. on the estimated value; a drawback of 10 per cent. of the duty being allowed to shippers for dirt, &c.

#### MOHAIR.

Angora, a fertile province in Asia Minor, which furnishes the valued mohair so much esteemed in Western Europe, has been brought to the verge of ruin by an administrative decree. Mohair is the principal article of production and export from the province, and it had at one time the monopoly of its production. The government probably counted on this in imposing a heavy additional tax. The consequence has been that the peasant, unable to pay the burden, prefers to kill the animals for food. A considerable number of goats have of late years been exported to the Cape of Good Hope and Australia, where they appear to thrive and the fleece to lose none of its qualities by the change of climate. Thus, whilst by the blindness and cupidity of the government a valuable source of wealth is being destroyed, rival centers of production are coming into prominence in other countries.

Since the introduction of Cape mohair into the western markets, that of Turkey has suffered an increasingly severe competition, which ill fits it to bear the increased duty recently imposed on the latter by the Turkish government. Until last year the duty paid on mohair was 6½ cents per pound, but this year it has been raised to 8½ cents per pound in addition to the tax of 6½ cents per head on each goat. Merchants complain bitterly of this excessive increase, which is likely in course of time to ruin a trade which one way or another brought a revenue of about \$4,000,000 per annum into the country.

Mohair enters largely in the manufacture of ladies' dresses, trimmings, light cloths, shawls, and velvets, and a number of other useful articles.

The clip of 1881 is estimated at about 30,000 bags. Price, May 16, 1881, for fair average fleece, 34.4 cents per pound.

During 1880 the price in Bradford varied considerably, ranging from 2s. 3d. per pound in January to 2s. 11d. per pound in April; but by October it had fallen to 2s. 1d. per pound.

Constantinople is the central market for mohair; but shipments are made also from Smyrna, Alexandretta, and Beyrout; from the two last-named ports to the value of about \$350,000 annually.

In November last a further shipment was made here of 415 goats via England, to the Cape of Good Hope. These animals cost here from \$20 to \$50 each, but they can be bought in the interior at a much lower price.

Mohair, known in Turkey as "tiftik," the hair of what is commonly called the Angora goat, is the fleece of the *Capra angorensis*, a species of goat which is reared in the plains of Angora and some of the adjoining districts. These goats, which number upwards of 600,000, are clipped in April and May, the finest hair being obtained from the kid when two years old; the second finest from the she-goat, the next from the wether, and the coarsest from the entire animal. The finest hair is about 5 inches long, generally of a white color and fine silky texture, and comes from the district of Bey Bazar. The next in quality comes from Ayash, and the third from Angora. A coarse and strong description comes from the neighborhood of Van, &c.

About 140,000 pounds of hair are worked up in the districts where it is produced in the manufacture of native clothing, &c.

The total clip in 1880 yielded for export about 35,000 bags, or say 6,300,000 pounds, of which—

	Bags.
Angora, district produced.....	5,000
Bey Bazar.....	4,000
Castamboul.....	4,000
Changora.....	3,000
Ayash.....	2,000
Eskisheir and Silvrhissar.....	3,000
Geredeh.....	4,000
Yusgat.....	3,000
Cherkesh.....	2,000
Sundry smaller districts.....	5,000
Total.....	35,000

The prices which ruled in 1880 were: January, 43.8 cents per pound; April, 59.6 cents; July, 49.18 cents; October, 43.8 cents; December, 39.3 cents for fair average fleece delivered free on board at Constantinople.

#### SILK.

This article is cultivated largely in Turkey; indeed the rearing of the worms and the unwinding of the cocoons form one of the chief industries in several districts, especially in and around Broossa, Adrianople, and Volo; also throughout the principal towns in Syria and the Lebanon. Silk is also cultivated in some districts of eastern Anatolia. The method of rearing the worms is much the same as that followed in the south of France. The first cocoons are preferred, and 4 pounds of cocoons should yield 1 pound of good silk; but this proportion is uncertain, as much depends on the nourishment the worm receives and the weather it experiences.

Broossa not only furnishes a large supply of silk for export, but manufactures a number of articles of dress which have long been noted for their beauty and real excellence of material. Most of the silk produced in this district is shipped from Constantinople. From the ports of the coast of Syria, about \$1,750,000 worth is exported, nearly all of which, like that of Broossa, goes to France.

The exports from Roumelia are valued at about \$100,000, and the ex-

ports from Smyrna last year were: for cocoons, 340 packages, value, \$29,910. The silk is worth from \$1.25 to \$1.37 per pound, and the cocoons about 31 cents per pound. The eggs or "seed" of the most vary from \$300 to \$750 per pound according to quality, &c.

#### HEMP.

This plant is grown in Anatolia principally at and near Trebizond, but the quantity exported is only about 400 tons. It is also grown near Ineboli and there worked up into the common ropes and cord used throughout the country.

#### COTTON.

The down of the *Gossypium herbaceum* is still an important export from Turkey, but the shipments are small now compared to what they formerly were.

Cotton is raised principally in Caramania whence about 40,000 bales (value, \$375,000) are exported, chiefly to England and France. Prices are about \$15 to \$17 per kintal (123½ pounds) for machine-ginned "Smyrna," \$14.33 for "Adana," &c. Small lots are shipped from the principal Syrian ports. The prices vary considerably according to quality, demand, &c.

#### TOBACCO.

The *Nicotina rustica* is cultivated successfully in several districts of Turkey, where it is produced in abundance and of more or less excellent quality, with profitable results. The annual production is said to be now 82,500,000 pounds and is increasing. The districts where it is most largely grown are Cavala in Macedonia, Samsoun and Trebizond in Anatolia and Latakia in Syria.

The produce of the Cavala district averages about 13,750,000 pounds but sometimes reaches nearly 16,500,000 pounds. The best descriptions are those of Yenidjeh, the next being the Drama and then those of Cavala, Pravista, &c.

Owing probably to some peculiarity of the soil the Yenidjeh leaf is small, thin and only mildly narcotic, while that grown in the Drama district is large and strongly narcotic.

About 5,500,000 pounds are sent annually from the Cavala district to Austria, and smaller quantities to Italy, Russia, Roumania, and Germany, a considerable quantity being sent to Constantinople. About 1,250,000 pounds are exported to England. Yenidjeh leaf costs \$1.25 per pound, Drama 36 to 41 cents, and Pravista 13 to 15 cents per pound.

The exports from Trebizond amount to about \$250,000 annually, the largest customers being the Austrian and the French governments, and from Syria about \$100,000. The manner in which the tithes were collected in the Samsoun district last year retarded and diminished the yield.

#### VALONIA.

The acorn-cups of the *Quercus agilopes*, known in commerce as Valonia, grow abundantly in Asia Minor. Valonia, when dry, is of a bright drab color which changes to black and loses its strength on becoming wet or even damp. The district of Smyrna produces the best quality, which averages about 35 per cent. of tannin, and from the port of Smyrna it is mostly shipped principally to England, but also largely to Germany and Austria. It is everywhere in demand and commands good prices.

During 1880 the exports from Smyrna amounted to 671,236 kintals (123½ pounds each) valued at \$2,864,062. Prices range from \$2.66 to \$4.33 per kintal, for "Smyrna" \$5.85 to \$6.07 for "Merzzanas." Shipments are also made at Adana, Adalia, and Alexandretta, together to the value of \$100,000. Valonia is used principally in tanning operations.

## GALL-NUTS.

Gall-nuts are excrescences produced by the attacks of a small insect on the shoots of *Quercus infectoria*. They are of three kinds, viz, "white," "green," and "blue," according to the time in which they have been gathered, and are found mostly in Syria and in the province of Aïdin. Nearly the entire crop is exported to Western Europe, principally to England and France, and partially to Germany, Holland, &c. Gall-nuts are largely used in the dyeing of several fabrics, also in the manufacture of writing ink.

Prices during the past year have been about 11 to 12 cents per pound for "blue mussul"; 9½ to 9½ cents per pound for "white"; 12 to 13 cents per pound for "black"; 9½ to 11 cents per pound for "green."

## OPIUM.

Raw opium is the concrete juice of the white poppy (*Papaver somniferum*), which is exclusively cultivated in certain districts of Asia Minor. The opium of Turkey has long been famous for its excellence; that which is known as "Smyrna" is the most esteemed, as it contains the largest proportion of morphia.

The greater part of the opium shipped at the port of Smyrna is obtained from the country around Broussa. The average production has recently been about 5,000 baskets, but the yearly yield varies considerably. The greater part is sent to England and Belgium in transit for continental cities; last year the exports from Smyrna alone were 2,849 cases (baskets), of the value of \$2,360,335, chiefly to England, America, and Holland, and this year a still larger quantity is sent to Constantinople and Marseilles.

The price of opium varies considerably according to the supplies furnished by other countries to the markets of England, the continent, and the United States. During 1880 it reached at one time \$15.87 per chequi (250 drachms) for "Malatia," and \$13 for "Black Hissar," but present prices are \$9.87 per chequi for "Malatia," \$7.40 per chequi for "Bogaditza," and \$6.07 per chequi for "Cavahissar."

From the opium districts the new crop is computed at a total of not less than 9,000 baskets, that is to say, nearly treble that of last year's crop. According to returns up to June 1, 1881, the produce of the old crop was 3,195 baskets; of these, 1,915 went to Smyrna, and 1,280 arrived in this market. Out of this number 2,915 were exported to Europe, of which 915 only have been sold.

Stocks at present consist of 2,000 baskets in Europe, &c., 219 baskets in Smyrna, 61 baskets in Constantinople, a total of 2,280 baskets available, stocks to which, if 9,000 baskets for this year's crop be added, there will be a total of not less than 11,280 baskets. Now, if the maximum annual consumption of 5,500 baskets be deducted—and this is the figure fixed by statistics—there will be a surplus for this year of 5,780 baskets, more than equivalent to another year's consumption. Thus, unless some syndicate of speculators be formed, and buy largely to keep up prices,

there is scarcely a doubt that present quotations will give way to a heavy decline.

Poppy seed is exported on a small scale from Smyrna, where it costs about \$2.33 per pound. Candia exports about \$40,000 worth of opium.

#### LICORICE ROOT.

The licorice plant is grown very largely in Asia Minor, about 14,000 tons of roots being exported annually, a considerable portion of which is sent to the United States. Licorice paste also forms an important item, about 2,500 tons being the average annual export.

The average prices of the roots are about \$1.60 per cwt., and that of the paste \$8 per cwt.

#### SCAMMONY.

A gum resin, the produce of a species of convolvulus, is exported from the Smyrna district to the amount of 400 cases (16,800 pounds). Prices are about \$47.30 per pound for first "original"; \$34.87 per pound for second "original"; \$30 to \$45 per pound for "Iskillep."

A similar quantity is shipped from the Syrian ports.

#### GUM TRAGACANTH.

These gums are shipped principally from Smyrna and Constantinople, the annual exports amounting altogether to about 1,225,000 pounds. They vary in price from 40 to 54 cents per pound for "white"; 37 to 43 cents per pound for "seconds;" and 22 to 33 cents per pound for "ordinary."

The greater part of the gums shipped at Smyrna are sent to Switzerland and France, whilst those from Constantinople are taken via Liverpool for consumption in England and the United States. Shipments are also made from the Syrian ports to the value of about \$125,000.

#### SALEP.

Salep is a powder prepared from the dried roots of the *Orchis masula*, and is used as an article of diet. About 275,000 pounds are annually exported, mostly from Smyrna, principally to British India, Egypt, England, &c. It is worth from 24 to 30 cents per pound in this market.

#### YELLOW BERRIES.

Yellow berries are grown principally in Anatolia, Syria, and Thessaly, and form a considerable article of export from this country. The total annual yield for 1880 was about 8,000 bags, or 1,360,000 pounds. They are generally worth about 9½ to 11 cents per pound for "Tokat"; 9 to 11 cents per pound for "Ciorum"; 12½ to 12½ cents per pound for "Kaïssar," the price in May, 1881, being 12 to 12½ cents per pound.

The yellow dye extracted from these berries is used extensively in the printing of cotton, &c.

#### WAX.

The annual export of wax amounts to about 300 tons, the greater part of which is sent from Smyrna, Constantinople, and the Syrian coast to Italy, France, England, &c. The total value is about \$150,000; price, from 23½ cents to 28.1 cents per pound.

## MADDER ROOT.

This root, which was formerly a very important article of export, is now comparatively neglected since the discovery of its substitute, "alizarine," (mineral alizarine).

The exports of this root have fallen to about 1,120,000 pounds, most of which is shipped from Smyrna and the coast of Syria. The present price is about \$4.08 per kintal (123½ pounds for good, and \$3.01 to \$3.43 per kintal for second quality. In this country it is used in dyeing various fabrics, but in Western Europe its use is now confined to varying the different shades of color in certain kinds of cloth.

## RACINE SAPONAIRE.

About 650 tons of this article are annually shipped from Smyrna to various parts of Europe, where it is used for cleaning cloths, &c.; value of exports \$32,500.

## WALNUTS AND HAZELNUTS.

These are grown principally in the districts of Kirasmed, Trebizond, Samsoun, and Ordou, the amount exported reaching nearly \$500,000 in value. They are exported principally to Russia, Egypt, and France, and in small quantities to England.

In the Trebizond district the walnut crop for 1880 was unusually abundant, the total yield being estimated at about 20,000,000 pounds, most of which fetched from \$2.03 to \$2.19 per 100 pounds. In the same district the quantity of filberts exported was about 1,500,000 pounds—price \$1.34 to \$4.94 per kintal (123½ pounds) bag included, free on board

## WALNUT WOOD.

From the districts next above mentioned is shipped, almost entirely to France, walnut wood to the value of about \$150,000 annually.

## ALMONDS.

Almonds are exported principally from Smyrna, whence about 30,000 bags (4,125,000 pounds) are annually shipped. Most of these are the produce of the island of Chio, although they are also largely grown in Caramania. They are worth from 15½ to 24½ cents per pound, having increased considerably in value since the continued failure of the Spanish crops. Shipments are made also from Constantinople, but only on a small scale and principally to England.

## ANISE SEED.

About 275,000 pounds are exported from Smyrna, principally to France and Spain, where it is used by distillers. In Smyrna its price is about 8.8 cents to 9.36 cents per pound.

## DRIED FRUITS.

These are grown and prepared for export almost entirely in Southern Anatolia, and in Caramania, and are one of the principal as well as most remunerative exports of Turkey.

*Turkish figs* are second to none in the world, and have long been highly

esteemed throughout Europe and America. Of these, Smyrna exported in 1880 15,503,857 pounds, of the value of about \$1,692,190.

*Black raisins*, from the same districts, were last year shipped from Smyrna to the amount of 65,083,850 pounds, valued at \$2,613,750.

*Red raisins* were exported from the same districts in 1880 to the amount of 22,918,389 pounds, worth \$1,114,280.

*Currants*. Of these there were shipped from Smyrna in 1880, 25,070 pounds, valued at \$1,215.

*Sultanas* to the extent of 21,394,769 pounds were exported from Smyrna in 1880, valued at \$1,039,280.

The dried fruits mentioned above were exported principally to England, the United States, Germany, and France, but were sent also to most other countries.

Figs vary considerably in price, according to quality; good Smyrna averaging about \$13.90 per kintal (123½ pounds). Black raisins average from \$2.15 to \$3.78 per kintal; "Thyra" \$4.30 to \$4.94; "Phocia" \$5.07 to \$5.24; "Sultanas," "Yerly," good, 8.8 to 9.2 cents per pound; "Carabouruou" 9.2 to 9½ cents per pound; "Nymphio" 9.1 to 9½ cents per pound.

Samos exported during 1880 about 1,000 tons raisins. Prices, \$3.87 per kintal (123½ pounds) for "Fokiana"; \$3.54 per kintal for "Muscatil."

#### OLIVE OIL.

This olive is procured in great quantities throughout the Turkish islands of the Ægean. Although much is consumed throughout Turkey as an article of diet, very considerable quantities are sent abroad. The island of Candia is the most important oil-producing district, its annual exports amounting to about \$850,000, largely supplying the markets of Russia, Egypt, and Greece. In that island the value of the oil ranges from \$150 to 180 per tun (252 gallons), delivered free on boards. From Smyrna about 4,000 to 4,500 tuns are shipped every *two* years, valued at \$7.74 to \$8.60 per kintal (123½ pounds), mostly to England (the fine) and France (the common), say two-thirds to England.

From the coast of Syria the annual exports amount to about \$450,000. Last year the crop of Mitylene was an abundant one, the total yield being 180,000 to 200,000 kintals, worth \$7.74 per kintal, or about \$145 per tun, free on board.

#### SOAP.

Soap made from olive oil is shipped largely from Candia, the exports amounting annually to about \$520,000.

#### PORPOISE OIL.

This oil, to the value of about \$85,000, is exported from Trebizond and other ports of the Black Sea to England, Russia, and France.

#### COTTON SEED.

Cotton seed is exported on a large scale from Smyrna. Shipments average about 250,000,000 pounds, nearly all to England. The price is 77 to 95 cents per kintal. This quantity includes the seed obtained from the cotton consumed locally, as well as of that exported to Western Europe. It is chiefly used in the manufacture of oil.

## OIL OF ROSES.

Oil or attar of roses is an essential oil obtained by evaporation of the steeped petals of the "hundred-leaf rose," the oil rising to the surface of the water like a yellowish scum. It is produced principally in the district around Adrianople, also in the neighborhood of Smyrna, and throughout certain ports of Syria. Since the late war the quantity received from the Adrianople district has diminished considerably, and last year was only about 770,000 "xaghi" ( $1\frac{1}{2}$  drachms each), worth about 73 to 86 cents per xaghi. Smyrna exported about 1,000 ounces of a better kind, worth about 86 cents per drachm, to England, France, and Russia.

## RHUBARB.

Rhubarb was at one time exported from Smyrna on a large scale, but shipments are now almost nil, the European and American markets obtaining supplies elsewhere.

## SPONGES.

The export trade of Turkey in sponges is one of considerable importance and profit. The sponges are obtained mostly from the coast of Caramania and Syria, and from the shores of the islands of the *Ægean*. Smyrna is the principal market, and last year (1880) it exported 16,468 kintals, valued at \$1,206,316, chiefly to England, France, and the United States. From Beyrout and the coast of Syria, the annual shipments average about 75,000.

## LACES.

Laces of various kinds, to the value of about \$50,000, are shipped annually from Smyrna.

## WINE.

Wine is manufactured in almost every part of the Levant and the *Ægean*, but principally in the islands of Tenedos, Candia, Samos, and Santoria; at Pasha Liman, Smyrna, Salonica, and Erdek, near the Dardanelles, whence it is shipped to France, Russia, Roumania, Germany, and Belgium, but principally to France. The exports from the Marmora ports last year were about 4,000 tons, one-half of which went direct to Havre and the remainder principally to Marseilles. Smyrna exports annually from 5,000 to 6,000 tons, principally "Nymphi," worth from \$90 to \$100 per tun. Salonica exports largely, mostly to France, prices ranging from 32 to 77 cents per gallon.

## MASTIC.

This article is also shipped from several of the places above mentioned, but principally from Scio and Smyrna, which together export 70,000 gallons, of an average value of \$1.28 per gallon.

## ORANGES.

A considerable trade is done from the Syrian ports, principally Jaffa, in oranges, which are exported thence to Russia, Roumania, and Greece. The crop of 1880 was abundant and the fruit excellent.

## LEMONS.

These are exported from most of the islands of the *Ægean*, but mostly from Chio. About 200,000 cases of oranges and lemons, mostly the produce of Chio, are exported annually from Smyrna, worth together about \$250,000, and go principally to Russia, Roumania and Greece.

## CARPETS AND RUGS.

Although the carpets of Turkey have long enjoyed a deservedly good reputation for the excellence of their material, as for the beauty and harmony of their design, the severe competition they have of late years had to contend against from the splendid productions of the looms of Western Europe and the United States has caused a considerable diminution in the exports from this country. The largest and finest carpets are made at Osshak, a place about 30 miles from Broussa, and, with others made at Konia and Koula, places in the same district, are shipped from Smyrna. Last year the exports amounted to 2,821 bales, of a value of \$739,920, chiefly to England, France, and the United States. Smaller quantities are exported from Constantinople, Mersyn, and Beyrout, of which the value ranges from \$300 to \$400 per ton, delivered on board. Persian, Bokhara, Kourdistan, and Khorassan rugs find an outlet to Western Europe and the United States through Constantinople.

## SHEEPSKINS, LAMBSKINS, &amp;C.

Although Turkey herself uses largely of the sheep and lambskins obtained from her flocks, she is usually able to export a considerable quantity of both, principally from Constantinople, Smyrna, and Dedea-gatch, to England and France. In 1880 the number of lambskins exported was about 400,000, the price averaging about 69 cents the pair, the average weight per pair being about 5 pounds, besides about 200,000 "bottle-necks," worth about 69 cents per pair (and  $4\frac{1}{2}$  pounds weight). The number of sheepskins exported during the same period was about 200,000. These were worth about 13 cents per skin (weighing from  $2\frac{1}{2}$  to 3 pounds) for the bare pelts, or from 26 to 69 cents each for "wobled," according to wool and weight.

In addition to the above, about 500,000 goatskins were sent abroad, each worth from 39 to 52 cents, free on board, and weighing from 4 to 6 pounds.

## HIDES (SALTED AND DRY).

Hides are exported principally from Constantinople and Smyrna, to the number of about 35,000 pieces annually. These are sent to England, France, Austria (Trieste), and Greece (principally Syra), and are worth from 16 to 19 cents per pound. Further shipments are made from the coast of Caramania, Syria, &c., to the value of about \$200,000 annually.

## HORNS (CATTLE AND SHEEP).

About 192,500 pounds of horns are shipped annually from Constantinople, principally to Marseilles; worth from \$1.72 to \$2.15 per kintal.

## HORSE HAIR.

This is exported from Constantinople to France and England; also some 95,000 pounds of hoofs (sheep and cattle), and 33,000 pounds of hoof skins.

## LEATHER.

Blue and yellow leathers are prepared at Konia and shipped from Smyrna to France and England.

## RAGS.

Rags were exported last year from Constantinople, Smyrna, and Salonica to the amount of about 3,000 tons, the exports from Smyrna alone being stated at 8,337 bales, valued at \$83,370. Of the whole quantity exported the greater part was sent to England, the remainder to France and the United States. The average value was about \$35 per ton, the freight to England being 25s. to 30s. per ton.

From the coast of Syria the annual exports amount to about \$30,000.

## BONES (ANIMAL).

The exports in 1880 were about 6,500 tons—say from Constantinople 1,000 tons, Smyrna 1,500 tons, Salonica 1,000 tons, Dedeagatch 1,000 tons; several Turkish Black Sea ports 1,000 tons, and Marmora ports 1,000 tons; worth about \$15 per ton, and went to England and France. Freight to England, 27s. 6d. to 30s. per ton.

## BOXWOOD.

The wood of the *Buxus sempervirens* is exported from the districts of Trebizond and Smyrna, but the shipments from both are now much less than formerly. A considerable quantity is received at Constantinople from Poti, and transshipped hence mostly to England. Including transshipments of Russian boxwood at Constantinople, the total annual exports amount to about 13,000 kintals. Of that quantity about 8,000 kintals are received from the ports of Anatolia, while about three-fifths of the remainder is of Russian growth, and the rest from Caramania. The greater part is sent to England, small shipments being sometimes sent to Marseilles, Hamburg, and Antwerp. It is worth here about 4s. 6d. per quintal.

G. H. HEAP,  
Consul-General.

UNITED STATES CONSULATE-GENERAL,  
Constantinople, July 7, 1881.

## MINES AND MINERALS OF TURKEY.

## REPORT BY CONSUL-GENERAL HEAP, OF CONSTANTINOPLE.

Mining, properly speaking, does not yet exist in this country; the wretched attempts made at the few places hereafter to be mentioned being unworthy of that name as it is generally understood in other countries. This is the more surprising when it is considered that Turkey is naturally rich in many of the most useful metals and minerals now in general use; while in no country in Europe does there exist anything like so great a need for the introduction and development of this remunerative industry. The government seems almost hopelessly sunk in debt, and the bulk of the population depressed by poverty, and

it would be supposed that both government and people would be anxious to share in the working of the mines even on a moderate scale. Instead of which the government endeavors as far as lies in its power to discourage this industry, especially where it is introduced or supported by foreign agency or capital; and in some places where mines have been obtained at much trouble and expense, and fitted for working, it has soon been found that owing to the restrictions of the authorities and the ignorance and jealousy of the natives, no successful results could be hoped for without the payment of such "taxes" and remuneration to one and the other as to completely discount whatever benefits might be obtained from the working. For these reasons capitalists generally decline to entertain Turkey as a field for a mining enterprise.

#### ANTIMONY (ANTIMONIUM).

Antimony, a brittle metal of a grayish-white color, is shipped in small quantities from Chio. It is used in the composition of metal types for printing and for medicinal purposes. Antimony is now about to be mined at Port Lagos.

#### BORACITE (BI-BORATE OF LIME).

This is found at Moulveh, near Yeldis, on the Asiatic side of the Sea of Marmora, where one mine has been in operation for some six or seven years, and another has recently commenced delivery. The present annual yield is 4,000 to 5,000 tons, of which 4,000 are exported to France, where it is worth from \$75 to \$87 per ton, delivered; the freight from Kaloninie, where it is usually shipped, ranging from 30s. per ton for sailing vessels to 21s. per steamers. The first cost of boracite is very little.

#### COAL.

At about 150 miles from the mouth of the Bosphorus, on the Asiatic coast of the Black Sea, there is a coal basin of considerable extent and richness, which, when properly worked, will exercise a large influence on the future prosperity and civilization of the Ottoman Empire. These coal-fields are known as the Heraclea Basin, and are near the Heraclea Pontica of the ancients. The first report on them was made in 1854 by two French engineers; but it was not complete, as they were not furnished with the means of making a thorough exploration. Since then much more complete surveys have been made, which show that the coal beds extend over an area of about 450 square miles, and are estimated to contain 60,000,000 tons.

During the Crimean war the British Government obtained permission from the Porte to work these mines to supply the allied squadrons operating against Sebastopol and their numerous steam transports, and the works undertaken in the mountains south of Zougal Dag, 60 miles east of Heraclea, furnished nearly all the coal consumed during the siege. After the conclusion of peace it was no longer to the interest of the English to continue working these mines, whose development would have created a serious competition with their own coals, which now find so large an outlet in the East. After 1856 the working of the mines was left to the Ottoman Government, and it has been conducted ever since in the slipshod fashion that characterizes every work of public utility in Turkey which is under the supervision of the government.

The best quality of coal is obtained at Kooslov, in the district of

Heraclea, where it is found in seams varying from 3 to 18 feet in thickness. The mines are the property of the government, and last year were reckoned to have yielded about 33,000 tons, all of which was used by the vessels of the imperial navy and the government factories. The cost of this coal delivered at Constantinople is now about \$4.08 per ton, but with proper mining and means of transport it could easily be obtained for much less. Other beds are found throughout this district, extending from Iueboli to the banks of the river Sakaria, but none of them are yet mined, the only other mine being that of Sokia, where about 5,000 tons of lignite are extracted annually.

On the other hand, Turkey is compelled to import largely from abroad.

The following table shows the imports of English coals into Constantinople during the last six years :

	Tons.
In 1875 .....	179,625
In 1876 .....	213,249
In 1877 .....	145,253
In 1878 .....	260,766
In 1879 .....	198,523
In 1880 .....	207,519
Total.....	1,204,935

The freight on the above averaged about \$3.72 per ton.

#### CHROME.

This mineral is found principally in the Broussa district, where there are three or four mines, only one of which, however, is now being worked. It is at a place called Dag-Ardi. This mine is leased at an annual rental of \$35,000, and the lessee has the right to extract all the ore he can. From the mine the ore is conveyed by camels to Ghemlek, on the Sea of Marmora, whence it is shipped principally to Liverpool and Glasgow. The chrome obtained at Dag-Ardi is very rich, but, owing to the opening of other mines in Turkey and other countries, the demand has declined in England, and the output at Dag-Ardi has diminished. The yield is now very irregular, but the annual exports average 3,000 tons, worth from \$15 to \$17 per ton. The present value of the ore at Ghemlek is about \$15.50 per ton.

Within the last three or four years ore of a less rich description than that just mentioned has been mined in the hills of Catarina and Leontarochoria, near Salonica, during which period about 3,000 tons have been shipped, the price of which was about \$10.50 per ton, delivered at the place of landing on that coast.

Chrome is also found at Deorikieni, in the district of Castamouni, and at Aiyandan, near Sinope; but the attempts to mine it at these two places have been abandoned. Wherever it has been found its cost has been largely increased by the great difficulty experienced in conveying it to a suitable place of shipment. The lack of proper mining machinery and the difficulties created by the government officials have aided largely in limiting the yield.

#### COPPER.

Copper ore is found in greatest abundance and richness at Arghana, in the Taurus Mountains, whence it is brought to Tokat. At Tokat it is smelted, after which it is conveyed by camels and mules to Samsonn and Trebizond for shipment to Constantinople. The mines of Arghana belong to the Turkish Government, who works them in an "original"

manner, with doubtful success. Owing to delays and difficulties of transport, the distance from Tokat to Trebizond being about 65 miles, the ultimate cost of the metal is largely increased. Tokat copper is sometimes sold at Constantinople to the creditors of the Turkish Government departments at the rate of 16 to 19 cents per pound.

Copper ore is also found largely throughout the district of Trebizond, but is not yet mined there. It is also found in certain of the islands of the *Ægean*, but is not mined, as no concession to work the mines can be obtained from the government. In former times copper was mined in the Prince's Islands, Sea of Marmora.

#### EMERY.

This mineral, of a grayish color, is at present most abundantly obtained in the Sokia district, whence it is conveyed to Smyrna for shipment. The exports from Smyrna in 1880 reached 9,920 tons, of the value of \$198,440, and were sent chiefly to England and the United States, and a little to France. The average price is \$19.50 per ton.

#### IRON.

Although it is known that iron ore is to be found in abundance in many parts of this country, and that it might be extracted with profit without unusual difficulty, if permission and encouragement could be obtained from the Turkish Government, no serious attempt has been made either by the government itself or by others to develop this source of wealth lying unclaimed. Near Adana there is a large lode of very rich ore, for which a firman has long been vainly though urgently requested from the government. Rich seams of ore are known to extend through several districts in the province of Trebizond. Others have been discovered on the Marmora (Asiatic) coast, in the Prince's Islands, and in the immediate vicinity of Constantinople, all of more or less rich quality and facility of approach. Iron is also found in the island of Cos, but is not mined.

#### LEAD AND SILVER.

Argentiferous lead mines, worked and unworked, exist in several districts of Turkey, but, owing to the antiquated and negligent manner in which they have been worked and managed, they have never reached anything like the productiveness they might have attained. Twelve miles from Erzeroum a large mine is worked by the government. At Akdar Madeni, in the district of Castamouni, Asia Minor, is another rich mine of argentiferous lead. Mines less rich in silver are found at Marten Dag, near Kaisareyeh, and near Diarbekir, also near Baibourt, but nearly all are in possession of the government, and generally neglected. Other mines are known to exist, but, as no concession can be obtained to work them, little is known respecting them.

#### WHITESTONE.

This mineral is used by potters in the manufacture of certain kinds of earthenware. About 1,500 tons are annually exported from Smyrna to France and England. It is usually worth in Smyrna about \$14.50 per ton.

## MANGANESE.

This mineral, of a grayish-white color, is mined at Aptal, in the province of Trebizond, but hitherto the working of it has been grievously obstructed by the restrictions and demands of the government representatives. The quantity exported has barely reached 700 tons yearly, the value of which is about \$14,000. Two other mines in the same district have been closed. Manganese is also found at about 9 miles from Flatza, on the Asiatic coast of the Black Sea, but is not mined. In Western Europe it is used in glazing earthenware, in coloring enamels, and in bleaching.

## ORPIMENT (SULPHIDE OF ARSENIC).

It is found in the Koord Mountains, but the quantity exported is insignificant.

## PLASTER OF PARIS.

Plaster of Paris is found in its natural state in the isle of Kasas, between Karpathos and Crete, and is now being extracted, but the quantity for export is small.

## SULPHUR.

Sulphur ore, said to be plentiful and pure, is found in the small island of Anurgo, near Rhodes, but no serious attempt has been made to extract and export it.

## GOLD.

Gold is found at Serjillat, near the Dardanelles. From one ton of quartz found there about 45 ounces of gold were recently extracted.

From the foregoing outlines it may readily be seen that, with unusual natural advantages and facilities for their production, Turkey is still almost devoid of anything worthy of the name of mining industry, and her immense resources, the extent of which is yet far from being fully known, are everywhere neglected by those who should encourage their development, and those who know their value are prevented from deriving from the capital they have invested in mines those returns to which they are justly entitled. Before mining can succeed in Turkey, the obstructions of the government must cease; then private enterprise will find means to overcome all other obstacles to its development and success.

G. H. HEAP,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Constantinople, July 7, 1891.*

## PRICES AT AND FREIGHTS TO AND FROM CONSTANTINOPLE.

PREPARED BY CONSUL-GENERAL HEAP.

*Prices of the principal imports at Constantinople.*

## COLONIALS.

Sugar, Dutch:			
Crushed .....	per kintal* ..	\$9 03	to \$9 20
Bags .....	do.....	8 86	to 8 95
Coffee, Brazil:			
Fine .....	per pound..	19	to 20
Good .....	do.....	17	to 19
Ordinary .....	do.....	14½	to 16
Candles, stearine:			
Belgian .....	do .....	14	to 15
French.....	per case..	4 08	to 4 16
Indigo:			
Bengal .....	per pound..	1 68	to 2 16
Cochineal:			
Black .....	do.....	90	to 96
Gray .....	do.....	80	to 90
Pepper, black.....	do.....	11	to 12
Cinnamon .....	do.....	09½	to 14
Incense .....	per kintal..	8 60	to 9 50
Cloves .....	per pound..	32	to 36
Alspice .....	do.....	12	to 13
Rice:			
East India.....	per sack..	6 66	to 6 83
Italian .....	do.....	8 08	to 8 10
Tea, black:			
Ordinary .....	per pound..	27	to 30
Fine.....	do.....	80	to 88
Starch.....	per case..	4 47	to 4 50
Petroleum.....	do.....	1 33	to 1 72

## MANUFACTURES.

Yarns:			
Water twist, No. 8 to No. 14 .....	per packet. .	1 89	to 1 93
No. 16 to No. 24 .....	do.....	2 45	to 2 67
Extra twist, No. 8 to No. 14 .....	do.....	2 19	to 2 57
No. 16 to No. 24.....	do.....	2 36	to 3 01
Best red London.....	per half packet..	2 24	to 2 33

## SPIRITS.

Russian spirits:			
First quality .....	per 7 gallons..		4 33
Second quality.....	per 7½ gallons..		4 33
Third quality.....	per 8 gallons..		4 33
Austrian of 39½° .....	per 7½ gallons..		4 33
German (Hamburg).....	per 7 gallons..		4 33
Austrian rum, lowest quality.....	per 17½ gallons..		4 33
American spirits:			
American rum .....	per 9 gallons..		4 33
British rum .....	per 9 gallons..		4 33

## METALS.

Iron, bar:			
Ordinary .....	per kintal..	1 94	to 2 07
Swedish .....	do.....	3 31	to 3 48

\* 123½ pounds.

# FREIGHTS FROM CONSTANTINOPLE TO LIVERPOOL. 323

Nailrods :			
Ordinary .....	per kintal..	\$1 98	to \$2 07
Swedish .....	do .....	3 31	to 3 77
Sheet iron :			
$\frac{1}{4}$ single .....	do .....	2 88	to 2 97
$\frac{1}{2}$ double .....	do .....	3 33	to 3 44
$\frac{3}{4}$ treble .....	do .....	3 74	to 3 87
Hoop, 1 to 3 inches .....	do .....	2 58	to 2 79
Wire .....	do .....	2 58	to 3 44
Nails, French .....	per cask..	2 58	to 3 01
Steel bars .....	per case..	5 80	to 6 01
Tin:			
Bars .....	per kintal..	27 95	to 29 03
Plates .....	per double case..	8 17	to 8 81
Copper, sheets, &c .....	per pound..	19	to 20
Zinc, sheets .....	per 100 pounds..	5 25	to 5 50
The above prices are for cash.			

## FREIGHTS FROM CONSTANTINOPLE TO LIVERPOOL.

		Per ton.	
Goats' wool .....	per ton weight..	\$18 24	to \$20 65
Sheeps' wool .....	do .....	17 00	to 18 24
Sheeps' wool (pressed) .....	do .....	14 58	to 15 75
Yellow berries .....		7 29	to 8 50
Rags :			
Pressed .....		6 32	to 7 29
Unpressed .....		9 72	to 10 32
Boxwood .....		3 64	to 6 00
Lamb and sheep skins .....		13 36	to 14 58
Onions .....		9 75	to 10 50
Bran .....		7 29	to 7 87
Hemp .....		13 36	to 14 58
Nuts .....		10 93	to 12 15
Galls .....		10 93	to 12 15
Tobacco .....		14 58	to 17 00
Opium .....		29 16	to 30 37
Carpets .....		7 77	to 8 50
Waste silk .....		7 29	to 8 50
Gums, various .....		8 50	to 9 00
Oil, olive .....		8 50	to 9 00
Valonia .....		7 29	to 8 87
Grain .....	per bushel..	12	to 14 $\frac{1}{2}$
Otto of roses, value .....		$\frac{1}{2}$ per cent. of value.	

## FREIGHTS FROM SMYRNA TO LIVERPOOL.

Carpets .....	per ton measurement..	\$7 29	to \$7 87
Cotton .....	do .....	3 64	to 4 25
Frent .....	do .....	7 29	to 7 87
Galls .....	do .....	9 75	to 10 52
Goats' wool .....	do .....	18 44	to 20 65
Gums .....	do .....	7 29	to 9 75
Liquorice paste. ....	per ton weight..	4 86	to 6 00
Madder roots .....	per ton measurement..	2 43	to 3 00
Olive oil .....	per ton weight..	7 29	to 7 77
Opium .....	per ton measurement..	37 66	to 42 52
Sheeps' wool .....	do .....	14 58	to 15 75
Skins .....	per ton weight..	9 72	to 10 32
Sponges .....	per ton measurement..	6 00	to 7 29
Tobacco .....	do .....	7 29	to 8 50
Valonia, in bulk .....	per ton weight..	4 86	to 5 70
Valonia, in bags .....	do .....	6 00	to 6 70
Yellow berries .....	do .....	7 29	to 7 87

Rates varied considerably during the year, but the above may be accepted as the average.

G. H. HEAP,  
Consul-General.

UNITED STATES CONSULATE GENERAL,  
Constantinople, July 7, 1881.

## POLYNESIA.

## TRADE AND NAVIGATION OF THE HAWAIIAN ISLANDS.

*REPORT BY MR. COMLY, MINISTER RESIDENT AT HONOLULU.*

I have the honor to transmit three copies of the Hawaiian customs-house statistics for the year 1880, complete.

I have made a few comparisons and analyses which may be of some interest or value in saving time to others.

The total exports for 1880 valued at \$4,968,444.87; total exports of domestic produce, \$4,889,194.40. Of these last there were, sugar, 63,584,871 pounds; rice, 6,469,840 pounds; wool, 381,316 pounds; a large increase in sugar and rice, and a falling off in wool, caused by delay in shipment. The probable export of sugar for 1881 is estimated by good judges at over 80,000,000 pounds. There is a small increase in coffee, but it is not likely to become an important export for some years.

The total exports exceed the imports (\$3,673,268.41) by \$1,295,176.46. Of these imports \$510,161.32 were specie, leaving a balance of \$785,005.25 on exchanges of goods, wares, commodities, &c.

The exports for 1880 exceed those of 1879 by \$187,726.90, while the imports for 1880 are \$69,709.98 less in value than 1879.

The imports "free by treaty" are, on the other hand, \$206,202.57 more than for 1879. Increase of customs receipts, \$42,510.58. There is a falling off in the importation of machinery of 53 per cent., caused by the sugar plantations having been supplied with Glasgow machinery in former years.

The chief instance in imports is in the following articles: Flour, 24 per cent.; furniture, 13; grain and feed, 33; groceries and provisions, 10½; lumber, 17; naval stores, 43; paints, oils, &c., 15 (kerosene is a large item; there is no coal gas on the islands); spirits, 12 per cent.

While the Hawaiians have exported such large quantities of rice to us, paying no duty, they have imported an inferior article for use on the plantations, to the amount of 1,050,476 pounds, with an additional amount of 665,684 pounds still in bond. All this rice paid, or must pay, duty to the Hawaiian Government, and has operated to release so much Hawaiian rice for export to the United States free of duty.

On representations from this legation, this condition of things has been ended. A prohibitory duty has been laid on foreign rice, and producers of Hawaiian rice are required to authenticate its nativity, before officers appointed for the purpose, previous to exporting it to the United States as Hawaiian product. I consider our revenues now thoroughly protected from any attempt even to export foreign rice to the United States as Hawaiian product.

The rice imported here is chiefly of Chinese product, and for Chinese consumption. The Chinese are also beginning to figure in the tables in a number of other articles, such as "Chinese peanut oil," \$13,161.48; "Chinese wines," to a considerable amount; "sundry Chinese provisions," \$24,342.65, &c.

Among the articles paying duty which ought to have been furnished by our American manufacturers are steam-engines, centrifugals, sugar-coolers, and "sundry assorted machinery" to a large amount. There are

two more complete sugar "plants" from Glasgow; none from the United States.

To offset these, we have 14 American steam-engines and 4 centrifugals, at a valuation of about \$20,000, about one-fourth the worth of one sugar "plant."

I have ascertained that the valuation put upon these "plants" in the custom-house is the invoice value in the manufactory at Glasgow. The "plants" are *sold* here with all commissions, insurance, carriage, and other charges added.

The showing for American shipping is gratifying. Not only have our ship-builders furnished nearly all the new steamers and other vessels introduced, and our owners also transferred most of the bottoms which have changed register to the Hawaiian flag under Hawaiian owners, but the bulk of all the trade between the two countries has been carried under the American flag. Excluding whalers, out of 235 merchant vessels and steamers visiting Hawaiian ports, 179 were American, leaving 60 only of all other nations. Total tonnage, 141,906; American, 99,614; all others, 42,302.

These statements include also all Hawaiian vessels sailing foreign. The Hawaiian flag covers coasting sail vessels, 42; steamers, 8; sailing foreign, 13; tonnage, 10,148. Nearly all these vessels are of American build.

Lost during the year four coasters: of the whaling fleet, 15 out of 16 are American; tonnage, 4,951; all American, less 188 Hawaiian.

The following are my footings of the passenger and immigrant returns: Passengers arrived, 5,593; passengers leaving, 1,928; net gain, 3,665; passengers in transitu, 1,899 additional.

Chinese immigration has increased rapidly, perhaps to an amount equal to the whole of the year 1880 since January first. That for 1880 foots up as follows: Chinese arrived, males 2,442; females 63; total, 2,505; departed, males 622, females 6; total, 628; net gain, 1,877.

I think it safe to say that there are now nearly 14,000 adult male Chinese in the kingdom, and that they comprise more than half of all the adult population of all races whatsoever. The following table is interesting as showing the progressive increase under the reciprocity treaty of imports "free by treaty," and of course strictly American goods:

1876 .....	\$343,831
1877 .....	1,100,643
1878 .....	1,619,988
1879 .....	1,820,355
1880 .....	2,026,558

So far as it goes, this is a very fair showing for the treaty.

JAMES M. COMLY,  
*Minister Resident.*

LEGATION OF THE UNITED STATES,  
*Honolulu, April 11, 1881.*

## LABOR IN THE HAWAIIAN ISLANDS.

REPORT BY VICE-CONSUL HASTINGS, OF HONOLULU.

The labor problem, which has been a difficult one here for some years past, has not as yet been solved by the government, the planter, or the capitalist, and to-day the demand for cheap labor is apparently greater

than ever. As heretofore, the government is still active in its efforts to obtain laborers to develop the agricultural resources of the kingdom and at the same time to procure a class of people that will assimilate and intermarry with the native race, who are fast dying out, and thus supply the kingdom with a population as well as with labor.

During the past year many of the planters have been quite active in their efforts to obtain a suitable class of labor, and for that purpose some of them have visited the southern part of the United States, Sweden, Norway, and Germany, with apparently no success. The greater number of laborers brought here during the past year have been obtained from China, the Azores, and South Sea Islands.

The wages at the present time paid to common laborers on sugar plantations varies from \$8 to \$20 per month, with board. The Chinese, who contract on arrival here to labor for a term of one, two, and three years, receive from \$10 to \$15 per month and found; the South Sea Islanders from \$8 to \$10; Portuguese, \$10 to \$12; while white men, natives, and negroes, receive from \$12 to \$20.

The cost of subsistence is estimated at from \$5 to \$8 per month for Chinese, natives, and South Sea Islanders, who subsist mostly on rice, poi, fish, and beef; from \$12 to \$18 for white men, Portuguese, and negroes.

While Chinese and South Sea Islanders are mostly employed as field hands, the others mentioned can be used as teamsters, plowmen, and mill hands, for which the Chinese and South Sea Islanders are wholly unfit.

The better class of experienced labor on sugar plantations are paid as follows :

	Per month.
Managers.....	\$100 to \$250
Engineers.....	100 to 150
Assistant engineers.....	40 to 60
Book-keepers.....	50 to 100
Sugar boilers.....	100 to 150
Assistant boilers.....	40 to 80
Lunas, or overseers.....	30 to 75

In Honolulu the following monthly wages are paid by business houses to experienced men, viz :

Book-keepers.....	\$100 to \$200
Cashiers.....	150 to 175
Salesmen.....	75 to 100
Shipping clerks.....	60 to 90

Journeymen of various trades, such as carpenters, plumbers, tinkers, machinists, bricklayers, &c., receive from \$2.50 to \$5 per diem, according to the demand for their labor.

The following schedule shows the prices here for the principal articles of food :

Bread.....	per pound..	\$0 04
Flour*.....	do .....	03
Meal*.....	do .....	06
Dried fruits*.....	do .....	15
Irish potatoes*.....	do .....	02
Sweet potatoes.....	do .....	04
Beef.....	do .....	10
Pork.....	do .....	25
Mutton.....	do .....	15
Veal.....	do .....	15
Poultry.....	do .....	25
Fish, dried.....	do .....	90

\* Imported.

Fish, fresh .....	per pound..	\$0 12
Pease* .....	do ....	10
Beans* .....	do ....	05
Onions* .....	do ....	07
Rice .....	do ....	07
Corn* .....	do ....	08
Refined sugar* .....	do ....	15
Unrefined sugar .....	do ....	8-10
Canned fruits* .....	do ....	16
Canned oysters* .....	do ....	15
Canned corn* .....	do ....	10
Canned tomatoes* .....	do ....	12½
Salt pork* .....	do ....	11
Salt pork .....	do ....	08
Salt salmon* .....	do ....	06
Butter .....	do ....	40
Lard* .....	do ....	16
Cheese* .....	do ....	30
Coal oil* .....	per gallon..	40

F. P. HASTINGS,  
Vice-Consul.

UNITED STATES CONSULATE,  
*Honolulu, Hawaiian Islands.*

## IMMIGRATION AND LEPROSY IN THE HAWAIIAN ISLANDS.

REPORT BY VICE-CONSUL HASTINGS, OF HONOLULU.

### IMMIGRATION.

The larger portion of immigrants arriving here yearly are Chinese, and although the government is making strenuous efforts to procure labor from other countries, a steady stream of immigrants from China is pouring in here that will soon have the effect of flooding both the labor market and the kingdom. The recent opposition to Chinese immigration in the western part of the United States seems to have turned the tide in this direction, and during the past three years the number of Chinese on these islands has more than doubled.

The census of 1878 shows the Chinese population of the kingdom to be 5,916. On December 31 last, that number had increased to 11,268, and there are at the least calculation 3,000 more on the way here. Unless restrictive measures are taken by this government, in a few years they will outnumber the native population, and the Hawaiian Kingdom will become virtually a Chinese colony.

There is hardly a department of business or an agricultural industry on these islands in which the Chinese are not represented. They are getting possession of government and private lands by long leases and by purchase; they assimilate and intermarry with the natives, and are slowly and surely wresting from them their rich taro patches and rice fields. Judging from the rapid manner in which the native population of these islands is dying out, it is not improbable that many hundreds of youthful Chinese now roaming the streets of Honolulu may witness the last scene in the Hawaiian drama.

The last Legislative Assembly appropriated \$100,000 for the encouragement of immigration, but as it appears to be the policy of the govern-

\* Imported.

ment to procure population as well as labor, it is fair to presume that the greater part of this money will be spent in procuring people from the South Sea Islands, Azores, and British India.

One of the causes which are working slowly and surely towards the utter extinction of the Hawaiian race is the alarming prevalence on these islands of that dreadful disease, the

#### LEPROSY.

This government still continues to segregate the unfortunate victims of this disease and to appropriate generously for their care and support. The appropriation for the present biennial period is \$85,000, with an additional \$20,000 for the cure of lepers, to be paid at the rate of \$200 each.

The following table, taken from the report of the resident physician at the leper settlement on the island of Molokai, shows the number of lepers under government charge on January 1, last:

*Lepers in leper settlement, at Kalawao, Molokai, from January 1, 1880, to January 1, 1881.*

Males older than 1 year, outside hospital January 1, 1880.....	370	
Females older than 1 year, outside hospital January 1, 1880.....	270	
Males in hospital.....	44	
Females in hospital.....	13	
		<hr/>
		717
Males arrived from January 1, 1880, to January 1, 1881.....	33	
Females arrived from January 1, 1880, to January 1, 1881.....	14	
Males entered from January 1, 1880, to January 1, 1881.....	1	
Females entered from January 1, 1880, to January 1, 1881.....	2	
		<hr/>
		50
		<hr/>
		767
Males died from January 1, 1880, to January 1, 1881.....	102	
Females died from January 1, 1880, to January 1, 1881.....	59	
		<hr/>
		161
		<hr/>
		606
		<hr/>
Males older than 1 year, outside hospital January 1, 1881.....	330	
Females older than 1 year, outside hospital January 1, 1881.....	228	
Males in hospital.....	41	
Females in hospital.....	7	
		<hr/>
		606
		<hr/>
Males less than 1 year, born in settlement, January 1, 1880.....	7	
Females less than 1 year, born in settlement, January 1, 1880.....	2	
		<hr/>
		9
Males less than 1 year, died.....	4	
Females less than 1 year, died.....	2	
		<hr/>
		6
Remaining.....		<hr/>
		3
		<hr/>
Total lepers and offsprings in settlement January 1, 1881.....		609

Although the various reports from this quarter do not usually show any great increase in the progress of the disease, yet it is an admitted fact that it is yearly increasing among the natives of this group, and that it is impossible to apprehend and segregate all persons on the group afflicted with it, as they are in such numbers that the government could

not care for them. Only the worst cases, therefore, are apprehended and sent to the settlement.

In this connection, and in regard to the dangers threatening the Hawaiian people from the spread of leprosy, the late medical superintendent of the settlement, in a report made in March last, to the president of the board of health, says :

My observation in traveling among the different islands of this group has more and more impressed me with the fact that leprosy is deeply rooted in a large fraction of the population, and that the lepers outside of the settlement cannot number less than 500 or 600, and may exceed that number.

Omitting from the calculation lepers isolated at the settlement, the number of those now at large in the kingdom cannot be estimated at less than 1 per cent. of the entire population, which is probably a moderate estimate.

The more I study leprosy the more I am led to believe that it is a contagious disease, and that every leper is a possible source of infection to whomsoever comes in contact with him.

Making its appearance in these islands about 1856 or 1857, perhaps earlier, it has multiplied in geometrical progress, so that within thirty years, from being a strange and unrecognizable malady, it now reckons its victims by the thousands, and its features are become so well known, so stamped on the public mind, that but few fail to recognize it at sight. Of all the causes, therefore, now operating to sap the vitality of the Hawaiian race, and to bring about its extermination, none is so fraught with danger and so calculated to alarm the mind of the well-wisher of this race as this disease of diseases, leprosy. Science has as yet found no cure for it; philanthropy and patriotism unite in lifting up their voices to advocate the wisdom and necessity of the plan which has been adopted by the board of health of separating the unclean from the clean, lest both perish together. I cannot, however, refrain from the remark that to be effectual the method of isolation must be carried out rigorously; half-way measures are of no use, or of but little, and might almost seem open to the charge of cruelty and injustice.

F. P. HASTINGS,  
*Vice-Consul.*

UNITED STATES CONSULATE,  
*Honolulu, Hawaiian Islands.*

## EDUCATION IN HAWAII.

*REPORT BY VICE-CONSUL HASTINGS, OF HONOLULU.*

Under this head I have selected the following extracts from the able and comprehensive report of the president of the board of education for the two years ending March 31, 1880 :

### SCHOOL SYSTEM OF THE COUNTRY.

#### NATURE AND ORIGIN OF THE SYSTEM.

Its supervisory power is vested in a board of education, and under the board an inspector-general, district school boards, and agents. The schools are supported by direct taxation and special legislative appropriations. It provides for primary, secondary, and superior instruction, and also for reformatory and industrial instruction. It provides for the compulsory attendance of youth at school, and for preserving its institutions of learning free from sectarian influence. In these respects our present school system is founded on the broad principles which govern the leading educational systems of the western continent.

#### PROGRESS OF THE SYSTEM.

The system is still in a youthful condition, and many of the natural outgrowths of foreign systems have not yet been fully or successfully incorporated into it. Among these may be mentioned the systematic examination and grading of teachers; the

establishment of normal schools for training teachers, and of teachers' institutes; and the full and proper gradation of the pupils in the public schools.

The results, however, of the past biennial period would seem to indicate the increased interest and confidence of the nation in its system of public instruction. This interest is manifested by the popular desire for schools of increased proficiency; by the acknowledgment of the superior efficiency and economy of systems of union and graded schools; by the greater demand for well qualified teachers; and by the desire for new and better school-houses to take the place of the old and dilapidated ones. This progress, so satisfactory to the friends of education, is evidence that the judgment of the people harmonizes with the liberal educational policy which your honorable body has heretofore seen fit to pursue. This harmony is essential to the success of our system of instruction; for experience proves that liberal appropriations and legislative enactments cannot of themselves alone impart to such a system vitality. It must rely also for this upon an enlightened public opinion, itself the result of education, by which the people are brought to esteem the proper training of their children a paramount duty.

As already intimated, perfection is not yet claimed for our school system. The building up of an efficient educational system, adapted to the wants of a people, can only be accomplished by the patient, unremitting efforts of successive years. But the board do believe that our system possesses elements of worth and power which vindicate its claim to popular support, and that there will be no difficulty in gradually incorporating into its structure all the improvements which are the natural result of increased human thought and activity and the changing condition of the nation.

THE SCHOOLS OF THE COUNTRY.

As indicated in the statistical tables, the general educational system of the country is represented in three classes of schools—the government common schools, the government select schools, and the independent schools.

	Number of schools.	Boys.	Girls.	Total.
Government common schools .....	150	2, 330	1, 748	4, 078
Government select schools.....	14	943	352	1, 295
Independent schools.....	46	775	1, 016	1, 791
Total .....	210	4, 048	3, 116	7, 164

Government common schools.

[Taught in Hawaiian.]

Island.	Number of schools.	Boys.	Girls.	Total.
Hawaii .....	59	814	684	1, 498
Maui .....	30	539	395	934
Molokai .....	12	125	86	211
Lanai.....	1	2	4	6
Oahu .....	33	537	419	956
Kauai.....	14	293	149	442
Niihau.....	1	20	11	31
Total .....	150	2, 330	1, 748	4, 078

Government select schools.

[Taught in English.]

Island.	Number of schools.	Boys.	Girls.	Total.
Hawaii .....	3	145	58	203
Maui .....	4	232	93	325
Oahu .....	6	538	185	723
Kauai.....	1	28	16	44
Total .....	14	943	352	1, 295

*Independent schools.*

[Taught in English.]

Island.	Number of schools.	Boys.	Girls.	Total.
Hawaii.....	15	272	248	520
Maui.....	8	154	171	325
Molokai.....	2	27	21	48
Oahu.....	19	299	553	852
Kanai.....	2	23	23	46
Total.....	46	775	1,016	1,791

*Classification of pupils.*

	Boys.	Girls.	Total.
In government common schools.....	2,330	1,748	4,078
In government boys' boarding schools.....	116	.....	116
In government English day schools.....	827	352	1,179
In independent girls' boarding schools.....	.....	285	285
In independent boys' boarding schools.....	168	.....	168
In independent day schools.....	607	731	1,338
Total.....	4,048	3,116	7,164

*Nationality of pupils.*

Hawaiians.....	5,657
Half-caste Hawaiians.....	955
Chinese.....	85
Americans.....	247
Brittons.....	90
Portuguese.....	55
Germans.....	37
French.....	2
Other foreigners.....	36
Total.....	7,164

*Comparative table of the school population.*

Island.	Census, December 27, 1878.			In schools January 1, 1878.			In schools January 1, 1880.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Hawaii.....	1,385	1,167	2,552	1,217	927	2,144	1,231	990	2,221
Maui.....	1,073	835	1,908	896	618	1,514	925	659	1,584
Molokai.....	225	161	386	127	118	245	152	107	259
Lanai.....	15	8	23	5	4	9	2	4	6
Oahu.....	1,606	1,387	2,993	1,382	1,120	2,502	1,374	1,157	2,531
Kanai.....	445	325	770	343	199	542	344	188	532
Niihau.....	12	14	26	21	14	35	20	11	31
Total.....	4,761	3,897	8,658	3,991	3,000	6,991	4,048	3,116	7,164

## NOTES ON SCHOOL STATISTICS.

The number of schools of all classes in the kingdom on the 1st of January, 1880, was 210, with an attendance of 7,164 pupils, or an average of about 34 pupils to each school. The number of pupils reported in 1878 was 6,991; showing an increase of 173 pupils during the past two years.

The percentage of school population, as distributed among the different classes of

schools, is nearly as follows: In the common schools, 57 per cent. ; in the government select schools, 18 per cent. ; and in the independent schools, 25 per cent. of the whole school population. This indicates about 57 per cent. of the pupils of the kingdom as taught in the Hawaiian language, and 43 per cent. in the English language.

The tables show an excess of 932 boys over girls, or 57 per cent. of boys and 43 per cent. of girls in the whole school population. There has been a little decrease in the excess of boys since 1878.

In nationality the percentage of pupils is nearly as follows: Hawaiians, 79 per cent. ; half-caste Hawaiians, 13 per cent. ; all other nationalities, 8 per cent.

The enumeration of children of legal school age, by the census taken in December, 1878, indicates 1,494 children, or nearly 18 per cent. of the census school population, not represented in any of the schools of the kingdom. After making liberal deductions for the foreign children whose parents prefer to educate them at home, and the children living in sparsely settled districts where there are no schools, and those who from bodily infirmity are unable to attend school, there still remains about 10 per cent. of the census school population who are absentees from school. A large portion of this deficiency in our school-going population is doubtless among the children of the Chinese included in the census, and Hawaiian children between the ages of 12 and 15 years; these being the classes often drawn off to the industrial pursuits of the kingdom.

The appropriation for the bureau of public instruction for the present biennial period is \$89,020; a slight increase over that of the preceding two years.

FRANK P. HASTINGS,  
*Vice-Consul.*

UNITED STATES CONULATE,  
*Honolulu, Hawaiian Islands.*

## NOTES.

**Consular.**—Consuls are expected to keep the following paragraph, from the Circular Letter of July 1, 1880, constantly in view during the preparation of their reports for these publications. There is no subject so interesting to American exporters and manufacturers, as that which treats on the enlargement of our export trade in the several consulates:

You are therefore requested to prepare and forward to this Department reports upon all subjects which may be calculated to advance the commercial and industrial interests of the United States, *bearing in mind, however, while giving yourselves the broadest field for the accomplishment of the work herein assigned you, that your principal efforts must be directed to the introduction of American trade into, and the enlargement thereof in, your several districts.*

**The Monthly Consular Publications.**—The Department is in daily receipt of applications for full sets of these publications. The first numbers, viz, 1, 2, and 3, are exhausted, and these requests consequently cannot be complied with.

The last Congress, however, ordered the republication of the said numbers in one volume, although, owing to the appropriation for general printing being unavailable until July 1 last, under which this special order fell, the work could not be commenced before. It is now nearly completed, and those desiring the first *three* numbers will soon be able to complete their sets by requesting the same from a Senator of their State or Representative of their district, as this supply was ordered especially for the use of Congress.

**Proposed new line of Steamers from Rotterdam to Baltimore.**—I have the pleasure to report that a new line of steamers has been organized to run between Rotterdam and Baltimore, consisting thus far of two steamers: Joshua Nicholson, of 1,853 tons, and Lord Jeffrey, of 1,846 tons. Another, to be called the Nederland, is being built, and will probably be completed about the first of September. This steamer will be the largest of the line, 2,200 register tons.

This line of steamers, called the Tully Line, is formed by English and Dutch capitalists, and will sail under the English and Dutch flags.

The gentlemen forwarding this enterprise hope to establish this company permanently, and will use any energy to make the undertaking a success.

They expect to make monthly departures from this port, and will proceed, by way of Newcastle o. T. and Bona on the Mediterranean, to carry iron ore to Baltimore, as the outgoing freights from Rotterdam will not at present be sufficient to make a paying cargo.

It is evident that steamers are fast replacing sailing vessels, and in time will probably altogether supersede them.

The first-named steamer will soon arrive from Baltimore with a general cargo, consisting of tobacco, staves, flour, wheat, &c.

There is no doubt but that this line of steamers will in time establish

a full share of freight between Rotterdam and Baltimore, and will tend to increase, not only the exports from the United States, but also the exports from this country to the United States, thus swelling the volume of trade between the two countries.

JNO. F. WINTER,  
U.S. Consul.

UNITED STATES CONSULATE, *Rotterdam, June 14, 1881.*

**Notes on the Trade of Cape Colony.**—The Department has received from Consul Edgecomb, of Cape Town, the following interesting items of the industrial and commercial condition of that country, although the references to date are not as late as desired, owing to delay in obtaining official statistics:

*Shipping.*—During the year ending December 31, 1879, twenty-nine American vessels visited this port—eight from New York with general cargoes, four from Boston with same, three from Montevideo with horses and mules, two from Valparaiso with wheat and flour, one from London with a general cargo, one from Cardiff with coal, one from Hong-Kong with a part cargo of Eastern produce, one from Rio de Janeiro with coffee, two from Natal in ballast, and three whalers, all of which, with the exception of the distressed vessels (three) and whalers, cleared from this port in ballast.

*American trade.*—There has been a large trade for many years in American goods in this colony. The value of imports from the United States for 1879 amounts to £241,129 sterling (\$1,171,886.94), and the exports thereto amount to £106,531 sterling (\$517,739.66). The imports consist of agricultural implements, lumber, furniture, doors, sashes, tinned meats, maize, oats, barley, wheat flour, beef, pork, tobacco, and, in fact, a host of other articles known here as “Yankee notions.” The exports consist of wool, ostrich feathers, sheep and goat skins, and a small quantity of buchu leaves, old iron, &c. Diamonds are not sent from here to the United States direct, as in former years; I am therefore unable to obtain any information on that subject. However, one week’s mail, estimated at £50,000 in value, was stolen from the Cape Town post-office in the early part of the year, which gives a very good idea of the vast quantity sent to Europe in the course of twelve months.

*Ostrich farming.*—This branch of farming, which has now become a very important one, was commenced in 1860, and to show the rapid increase I quote the following extract from the Blue Book of 1880: “Ostrich feathers exported from the Cape Colony during the year 1850, 760 pounds; 1860, 2,287 pounds; 1870, 28,768 pounds; 1879, 96,582 pounds, an increase in twenty-nine years of 95,822 pounds.” The large birds are fed on grain of all sorts (5 pounds of food per day keeping them in excellent condition), varied with lucerne, bones, crushed granite and shells. The young birds that are not old enough to breed run in troops of forty or fifty together and make up a comical and very docile lot of domestic fowls. They live principally on grass and other herbage, but readily eat Indian corn. Ostriches do not generally lay until they are four years old or upwards. At the first laying they lay from 15 to 20 eggs, and at the second from 12 to 16. Incubation lasts from six to seven weeks from the time the bird begins to set. The feathers of course are the produce for which the birds are bred. The plucking of each adult bird gives as much as from 10 to 18 pounds prime white feathers, fetching from £35 to £45 per pound, while others of the wing and tail are also very profitable. The price of a fully grown bird at the present day is about £50 sterling, and of a chick, about £10 sterling.

*Sheep farming.*—Sheep and wool form the chief pastoral productions of the colony, affording occupation to the greater part of its inhabitants, and contributing the principal amount to its exports. The origin of this industry dates back about eighty years. Sheep farms are of various sizes. The general average is about 3,000 morgen, or 6,000 acres. The average clip of wool in the twelve months, from the very best flocks in good seasons, is about 8 pounds of grease wool per sheep. If this wool fetches 8d., which some of it does, we have the annual return per head of 5s. 4d. Flocks in good condition are reckoned to double themselves in four years; it will therefore be seen that sheep farming in this colony is a very profitable industry. (For particulars relating to the amount of wool exported in 1879, see return of exports.)

*Goats.*—Very many of the sheep farmers have flocks of goats—in most cases the common goat of the country, but often mixed with various grades of Angora blood. The Cape-goat skin is unequalled for the manufacture of superior leathers. Between 300,000 and 400,000 of these are sold annually in the London market, where they have realized as high as 95s. the dozen. They are tanned in bark for the manufacture of

black leather called morocco. Angoras are comparatively a recent introduction; they were first brought to the Cape in 1836. Their fleece is called mohair, and 5,000 pounds were lately sold at Port Elizabeth at 3s. per pound.

*Horses, cattle, and mules* are bred in this country on an extensive scale. In former years great numbers of horses and mules were brought here from Montevideo; but at the present time the importation has nearly ceased owing partly to the ending of the Zulu and other native wars, at which time animals for the transport service were in great demand. Montevideo mules, after having been kept on a farm for twelve months and acclimatized, are well liked here, but the horses, owing to their vicious and balky dispositions, are not in favor. The price of a Cape horse or mule ranges from £16 to £40 sterling, while that of a Montevidean horse or mule is from £8 to £20. The price of a large fat ox for beef is £10 to £15. Cows in milk £10 to £20; dry, £6 to £9. (These are Cape Town prices.)

The number of domesticated ostriches in the colony, by the last census (1875), was 21,751, against 40 in 1865; horses, 24,279; cattle, 1,111,713; mules, 29,318; sheep, 990,423; goats, 2,187,214; Angoras 877,988.

*Cheap labor.*—The labor question in this country has always been a difficult problem to solve, although the colony literally swarms with an idle, shiftless population, but they will not work.

Two years ago, at the close of the war in Galeka and Gaikaland, the government found large numbers of natives in an actual state of starvation. They were brought to Cape Town by sea and fed at the expense of the government until work could be found for them among the farmers of the western province, many of whom took whole families of the natives; but no sooner did they get their bellies full (to use the words of a member of parliament in describing the state of affairs) than they deserted the farmers and traveled overland to Kaffraria, thereby contributing an element of discord in their own native country. The government has now inaugurated a new system of immigration of Kafirs from Delagoa Bay, and farmers are required to pay £7 sterling passage money for each Kafir, and 25s. per month with rations and quarters.

*The Basuto war*—This does not come, strictly speaking, under the head of annual returns, yet it is a matter of great importance to the colony, and as native wars recur annually I can see no reason why I should not refer to it in these returns. Two years ago the Cape Parliament passed the disarmament act, by which the government had power to compel every native to give up his gun to the proper officers by a certain date and receive compensation for the same. The government lately proclaimed the act in Basutoland. This was strongly opposed by the natives of the country concerned and the opposition party of the colony. Consequently a delegation of Basuto chiefs and headmen was sent to Cape Town during the session of Parliament to remonstrate with the government. The delegation were, however, obliged to return home without having accomplished their object; and the government being firm in their determination to disarm the natives, and the natives being equally determined not to give up their guns—this led to an outbreak, and the government has ordered all the available forces to the seat of the difficulty; likewise 300 volunteers from this town and 200 from Port Elizabeth and Grahamstown. This matter bears directly on the commercial interest of the colony, as a great number of the volunteers ordered to the front are clerks employed in the mercantile houses of the town in which they reside. There are, of course, two parties in this dispute, and I do not like to criticise the course pursued by either; but so far as I can learn from reading the newspapers, and from personal observation, there is really no reason why every Basuto should be allowed to carry a rifle.

*Customs.*—The total number of vessels entered inwards in 1879 was 2,238 of 2,139,182 tons, an increase of 408 in number and of 504,156 in tonnage over 1878. In regard to nationality of shipping inwards, it appears that 1,435 vessels belonged to the United Kingdom, 381 were colonial, 21 Austrian, 49 American, 25 Danish, 10 Dutch, 36 French, 145 German, 25 Italian, 107 Norwegian and Swedish, 3 Russian, and 1 Portuguese.

*Imports and exports.*—The total value of imports in 1879 was £7,080,229 (\$34,409,912.94), and of exports £3,805,609 (\$17,412,106.88), showing an increase respectively of £928,206 (\$4,511,081.16) and £349,318 (\$1,697,685.48) on the previous year.

*Railway material.*—As I have already stated, the wants of the colony at the present time are already supplied with general merchandise; there is, however, one class of manufactures, viz, railway cars, which I think might be introduced to take the place of the antiquated rolling stock of the present day and for the benefit of the traveling public. The government has lately imported several locomotives from England, but the carriages of the narrow-gauge line are the most ill-contrived, narrow, contracted arrangements imaginable. The hand-car might also supersede the trolley for road gangs. The latter is a primitive affair propelled by four sticks, and, I should judge, capable of attaining the speed of three miles per hour.

**Artesian Wells on the Sandwich Islands.**—The following valuable and interesting account of the sinking of artesian wells in Hawaii is given by Vice-Consul Hastings, of Honolulu, in a report to the Department:

The most important and interesting feature developed during the past year has been the success attending the sinking of artesian wells on this island. Three wells have thus far been sunk on different places in the vicinity of this port, and a fine flow of water procured in each instance at the depth of 204, 363, and 517 feet respectively. Arrangements are being made to sink wells of this kind in various parts of the group, which, if successful, will prove a great boon to agriculturists and stock raisers. Many large tracts of land that are now barren will become the most fertile parts of the islands, as the rich soil of the waste places only need water to make them the garden spots of the group, and increase to a great extent its agricultural resources and industries.

The legislative assembly for 1880 appropriated \$10,000 towards defraying the expenses of boring artesian wells on various parts of the group.

As it may be of interest to geologists to know the different stratas pierced in sinking artesian wells on this island, I append the memoranda taken during the sinking of a well just completed near Honolulu. A fine stream of flowing water was found at a depth of 517 feet.

5 feet loam—  
 6 feet of black sand.  
 4 feet of white sand.  
 180 feet of hard coral.  
 4 inches of white clay.  
 15 feet of coral and shells.  
 9 feet of hard coral.  
 41 feet of yellow clay.  
 10 inches of hard coral.  
 109 feet of yellow clay.  
 3 feet of hard coral.  
 20 feet of soft coral.  
 57 feet of yellow clay.  
 25 feet of white clay.  
 25 feet of yellow clay.  
 4 feet of quicksand.  
 4 feet of lava.  
 18 inches of hard gray rock.  
 30 feet of black rock, with three hard places and plenty of water.

**The climate of Algiers.**—Commercial Agent Jourdan writes that—

After the middle of May it is not prudent for visitors, especially invalids, to prolong their stay in Algeria. Then the heat of summer commences; walking in the sun is oppressive, and traveling in the interior of the country quite fatiguing, if journeys are made in diligences, which are heavy and clumsy vehicles.

In the month of June, and till the middle of July, the heat is yet tempered by the sea breezes, but after that time to the end of September winds prevail from the south, and cases of fever, especially of typhoid fever, are numerous, and make many victims during that period; when the sirocco (or desert wind) sets in, the sky becomes dim and lurid, and the heat is intolerable.

In October rain begins to fall, and produces a change of temperature; still, it is not safe to come to Algiers before the first days of November. I have given the range of thermometer during the winter season, from October to the end of May, but it must not be taken as an accurate index of the temperature, which is greatly modified by the atmospheric pressure, the humidity of air, the direction of the wind, and the local circumstances.

Algiers is good for persons suffering from pulmonary affections, the climate far from being of a relaxing character, combines with its mildness and equability a bracing and tonic influence. Making a comparison with the other winter stations, as Cairo, Nice, Cannes, Algiers, Malaga, and Madeira, it has been found that the conditions of the last place are the only ones approaching those of Algiers, which has the great advantage of being thirty hours by sea from Port-vendres in France, thirty-six from Marseilles, and four days' journey from London.

**Copper and Salt in Ontario.**—Commercial Agent Hibbard reports the following:

**Copper.**—A very rich copper mine is now being developed on the shore of Lake George on the Sault St. Marie, which will, it is expected, yield a large supply. This

will soon compete with our copper mines on Lake Superior. It is claimed that the former is much richer and, on account of situation, more easily worked.

**Salt.**—The great salt field of this section has been shown to extend over a larger area than was at first supposed by the discovery of salt rock at the village of Brussels, distant from Lake Huron about 30 miles east, the salt bed being of the same thickness and distance from the surface as here, thus giving the immense territory of about 1,500 square miles of the finest salt deposit in the world.

**Education in Austria.**—A report from the secretary of the United States legation in Austria, Mr. Delaplaine, gives a statement regarding the public schools in Austria, from which the following extract is taken :

I beg to submit an extract from the official report of the municipal board of education which may possess some statistical interest.

It is stated that the number of primary and secondary public schools in this capital in 1879-'80 amounted to 125, in which 63,955 children, consisting of 30,999 boys and 32,956 girls received elementary instructions, while 1,085 male and 573 female teachers were employed. In the enumeration of children attending these schools were included 1,830 boys and 1,925 girls of Slave, 307 boys and 517 girls of Hungarian nationality, 73 boys and 121 girls of other nationalities not Germanic. All the remaining children were of Germanic nationality.

**Hog-raising at Santos.**—The American consul at Santos, in writing to this Department under date of June 6, 1881, for information as to the raising and preparation of hog meat and fat for market, furnishes the following information :

I have never seen such hogs as those raised in this province, but they are raised chiefly for use on the plantation, and the surplus is used as gross fat, sent to cities to be used instead of lard. The process of killing is similar to that which must have originated the Mosaic prohibition—knocked on the head and without sufficient "blood-letting" by "sticking" through the throat into the heart, allowed to almost die, and then, instead of the body being thrown into boiling water for a few moments, and the hair or bristles *pulled out* or scraped, they are thrown into hot ashes, which burn off the hair, leaving the roots in the skin to be eaten, causing, in my opinion, all the leprosy and tape-worm affections so prevalent in the interior among the lower classes.

There are but few persons here who will buy "an American ham," and yet they eat no other. Our hams are eaten here as Yorkshire or Westphalian, neither of which come here except by individual request for family use. All others are American, although, with few exceptions, our hams and cheeses are unknown.

**The American Hog in Turkey.**—Mr. Heap, chargé d'affaires of the United States legation at Constantinople, writes to the Department of State under date of July 16, 1881, that the Turkish decree against the importation of American pork into the Ottoman dominions has passed into oblivion and become virtually a dead letter, and that a large consignment of American hams, which arrived shortly after the date of the decree, was, after passing the custom-house inspection, and paying the duties, entered for consumption.

**The Hog in Martinique.**—Vice-Consul Ciceron, writing to the Department from Martinique, submits the following :

I have the honor to forward herewith for your information a copy of the official newspaper of this colony, containing the promulgation in Martinique of the decree of the French Government of February 18 last prohibiting the importation into any part of the territory of the French Republic of salted pork from the United States of America.

I am given to understand that while the prohibition extends to sugar-cured hams, it does not extend to lard. I may mention that, though the home government issued their prohibitive decree in the middle of February last, and it is to be assumed that the alleged facts on which the decree is based must have begun months before, it is only on the 25th instant that the law came into operation here.

In the interval the people of the colony have been consuming large quantities of American pork, with no more ill effects than they had experienced during the many preceding years in which they had used this product as a principal article of their daily and principal food.

[Translation from "Les Antilles" of Martinique.]

It may be remembered that about the beginning of March we published a decree of the President of the French Republic prohibiting the importation of salt pork from America into any territory of the republic. A little later we further informed our readers that in consequence of representations from the metropolitan ports the government appointed a commission for the inspection of pork, not infected with trichinæ, in order that it might be admitted, per exception, for consumption; in a word, leave was granted to make selections by means of examinations and analysis.

After a delay of nearly two months the "Moniteur de la Martinique" has at last published the decree prohibiting the salt meat importation, and as said publication is not followed either by any explanation or by any further administrative decision we must conclude that the prohibition is absolute, whether the meats are or are not infected with trichinæ. It would seem to us, however, that, as the administration published the decree of February 10, so completely to suit its own convenience, there was ample time to organize a commission similar to that in the metropolis for the inspection of American meats, and only to prohibit such as are really dangerous. We hope, however, that this oversight will be speedily corrected; if not, it will most certainly give rise to numerous and pressing demands and objections.

**Locust destruction in Colombia.**—The larger part of this country, Consul Randall advises the Department, is being devastated by the "Langosta," as the pest insect is termed there:

About two years ago the valley of Cauca (the most fertile valley of this country) was so overrun and so terrible were the ravages that the sister States were called upon for aid. The government admitted free of duty all goods for consumption in the distressed districts.

The pest has been gradually extending until it seems probable that the whole of Colombia will be devastated. The migratory insect has followed the river, and the first swarms have already passed here, doing immense damage, but it is small in comparison with the damages that will result from the young now nearly ready to commence their flight. The pathway of these insects appears as though the country had been burnt over by a devastating fire. Undoubtedly aid will be asked from friendly nations.

**Petroleum at Malaga.**—Consul Marston reports that the custom duties being much higher on refined than on crude petroleum, a refinery has been put into operation here, and in the future it is expected that only crude petroleum will be imported from the United States to Malaga. He says:

I have made every effort to ascertain the particulars regarding this refinery, but without success. The only information I could obtain is that the establishment has a capacity of turning out about 1,000 to 1,200 gallons of refined oil per diem when working at full power.

I would also add that they permit no one to inspect the premises except those employed, flattering themselves, I presume, that the secret of refining petroleum in the "Spanish method" may be taken advantage (?) of by the Americans. I know of no other possible reason.

**Wheat crop in Russia.**—Minister Foster advises the Department in reference to the anticipated large yield of wheat this year as follows:

The Russian wheat crop is likely to be one of the largest ever raised in the empire, and the export promises to be much greater than usual. It is stated that in the districts tributary to the port of Odessa the yield is likely to be so large that the farmers think they could dispense with harvests for four years to come. Advices from Taganrog and the Caucasus show promise of a crop equal to that of 1874, one of the largest ever known in Russia, and advices from Moscow affirm that it is thought the harvest in Southern Russia will be the largest they have had for twenty years. The harvest in Central Russia, while not so enormous, will yield a splendid crop and of

excellent quality. In the southern provinces the grain is already cut. Farther north it is still subject to damage incident to bad weather and the insects. In the northern provinces and in Finland, where very little wheat is cultivated, the crops are not good, but this fact will only have the effect upon the wheat trade of furnishing a small home demand for this grain in regions usually dependent upon rye as the bread staple.

From the foregoing it may be inferred that the amount of wheat to be exported the coming season will be considerably larger than usual; how much larger it is yet difficult to ascertain with any accuracy. It will be remembered that last year there were general failures of the crops in the wheat-growing districts, and that, as a consequence, very little wheat was exported. The great drawback to the grain export trade of this country is the want of sufficient means of transportation and the absence of competition and enterprise on the part of the railroads.

From Moscow, which is the great commercial center of Russia, it is reported that all branches of business are beginning to revive and flourish after a long season of depression, solely on account of the prospect of an abundant harvest. It will not be without practical political influence also, for much of the discontent in the interior has resulted from hard times and short crops.

**Protective Policy in Russia—mode of working the same.**—The Department has the following expressions of the working of such policy recently announced formally by the imperial authorities of Russia, and which took effect the first of this year, from Minister Foster:

It is a matter of interest to note the process by which the Russian Government, without the creation of a new tariff or the formal declaration of a protective policy, has within three years increased its impost duties on the whole list considerably more in fact than 50 per cent. Customs duties were, up to January, 1877, paid in paper currency, but from that date it was decreed that they should be paid in gold; and as the paper rouble was at that date, and has since, ranged at least 33 per cent. discount, this decree was a natural increase of the tariff to that extent. On the 1st of January, 1879, among other taxes levied to meet the increased expenses occasioned by the Turkish war, was an impost duty on raw cotton; and the re-establishment of the duty on imported iron, of which notice was given in June last, took effect on the 1st of January last. And now is added a 10 per cent. increase on the whole tariff list, payable in gold, as well as double charges on government storage, to replace the salt excise tax. By these indirect methods the Russian tariff, which, as originally fixed, had been found a serious obstacle to foreign merchants and manufacturers, has been raised considerably more than 50 per cent. The country most affected is Germany, as having the heaviest trade with Russia, and these changes have provoked severe criticism on the part of the German press in the hope that its government may interpose some influence to modify the financial policy of Russia, which is characterized as of grave importance for German interests. In view, however, of the commercial system recently adopted in that country, it would hardly be consistent to remonstrate against a similar policy on the part of its neighbors.

**American Ships still decreasing.**—Consul Owen reports that the exports to the United States from Messina during the first quarter of 1881 were less by \$217,364 than those for the first quarter of 1880. Only three American vessels cleared for the United States from the ports of the district during the quarter, a falling off of two as compared with the corresponding quarter of 1880.

**Merchant steamers.**—Consul Sprague, in his report to the Department for the quarter ending June 30, 1881, writes as follows concerning the American carrying trade in the Mediterranean:

The same number of British steamers have called into this port to coal; of these, seventy-seven steamers proceeded direct to ports in the United States—a proof that they continue to hold the leading position in the carrying trade of the world.

The French and Italian lines of steamers recently established between the Mediterranean ports and New York continue their trips with punctuality and with apparent success, which may eventually encourage an increase in the number of steamers on those lines.

At the same time it is discouraging to record that the supplies of American produce imported into this market during the past quarter have been wholly conveyed in foreign bottoms—a fresh evidence of the depression which our mercantile marine is laboring under.

**American cereals in Germany.**—Consul Grinnell, of Bremen, reports, under date of August 6, 1881, to the Department of State that the importation of Indian corn into Germany during the six months ending July 1, 1881, amounted to 1,290,000 bushels, and that the latter half of the year will show a much larger importation of this excellent staple of food, which, when better known in the country, will increase to an indefinite extent. There have been but few shipments of wheat and rye this year. The American flour, which is prepared in a better manner, and at a cheaper rate, perhaps, than that of any country, has been interdicted by a duty of 25 cents per 100 pounds. This tax was established by the Reichstag at its last session. The duties on Indian corn, buckwheat, and barley are 6 cents per cwt., and 12 cents per cwt. for wheat, rye, and oats.

Hay has become very scarce and dear, owing to the protracted drought throughout Germany, and it is reported from Schleswig that the farmers are selling their plow-horses and killing their cattle, as they are not able to procure forage for their sustenance; this is also the case, but to a lesser extent, in Oldenburg.

**Cereals and flour in Spain and Portugal.**—Consul Sprague, of Gibraltar, transmitting his report for the quarter ending June 30, 1881, writes as follows:

The apprehensions entertained, as stated in my last quarterly report, as regards the indifferent condition of the growing crops of cereals in Spain, have been fully realized, and seem to have already extended to Portugal, as a demand has lately suddenly sprung up for inferior flour, which, on account of its moderate cost, can be imported with hopes of profit in the Portuguese markets.

This circumstance has enabled importers here of "No. 2" flour from the United States to run off their existences at a profit, with a probability of their renewing operations in that class of flour, though I may observe that low descriptions of French flour are already keenly competing against the low grades of American; anyhow, it is probable that during the fall there will be an increased activity in this important branch of trade, especially as the crops in the Levant are supposed to be under the average.

**Tobacco.**—The difficulties peculiar to this trade at Gibraltar are noted by Consul Sprague, as follows:

The trade in tobacco is still suffering from the severe restrictions which the combined efforts of the British and Spanish authorities have imposed upon it, and, further, to prevent the frequent recurrence of misunderstandings between both parties regarding the limits of jurisdiction of the Bay of Gibraltar, negotiations are at present going on between both governments upon the subject, and, by a late conference held at Madrid, the principal points have been agreed upon to serve as a basis for its settlement.

**The crop prospects in Germany.**—Consul Grinnell, of Bremen, has forwarded to the Department of State a communication, dated July 12, 1881, inclosing an official table showing the estimated harvest of Prussia up to the end of June, 1881, compiled by the heads of the several districts for the Prussian minister of agriculture. This table comprises substantially the agricultural area of the German empire.

An average harvest being reckoned at 100, the following are the estimates of the present crop: Wheat, 80; rye, 77; barley, 89; oats, 89; leguminous plants, 83; potatoes, 95; rape seed, 70; clover, 63; meadow hay, 69.

**Appearance of the Siberian cattle-plague near St. Petersburg.**—Consul-General Stanton writes to the Department of State, under date of July 19, 1881, that the local journals announce the appearance of the Siberian cattle-plague in the governments adjoining that of St. Petersburg, and

that it is steadily increasing, although as yet not to an alarming extent. According to the telegrams to the Golos, the governments have taken, although somewhat tardily, the necessary measures for isolating the infected districts, but the lack of veterinary assistance and the unwillingness of the peasants to comply with sanitary regulations are great obstacles to a speedy eradication of the plague.

It is also reported that in some localities, to save the skins, the peasants foolishly flayed the dead animals, whereby they contributed to the spread of the disease, and were themselves in many instances infected with the plague, which in some cases proved fatal. According to the latest reports, no headway has been made against the disease.

**American heirs wanted.**—A communication has been received at the Department of State from Consul Baker, of Buenos Ayres, relative to the search for the heirs of John Duffield, of Goya, Argentine Republic, which states that a communication had been received at the consulate from a gentleman named J. H. Anderson, and dated from the "Campbell House, Bay City, Mich." In this letter the writer declares that he was well acquainted with Mr. Duffield; that the heirs reside in the State of Maine, and that he (Mr. Anderson) "will look them up."

Heretofore, in pursuance of the vague information on hand, the search for the missing heirs was confined to Mobile, Ala. It would now appear, however, that either by advertising or correspondence in Maine, or both, the representatives of the deceased may at last be discovered.

It is understood by those who were acquainted with John Duffield, that he was originally a sailor and was connected with Captain Selfridge's Tehuantepec surveying expedition. He went from Central America down the west coast to Peru, from whence he crossed overland to Asuncion, or rather Villa Occidental, Paraguay, where for many years he was engaged in commercial pursuits. Dr. Newkirk, of Goya, the locality where Duffield was murdered, has recently written to Consul Baker to the effect that he (Dr. Newkirk) had received a letter from the Hon. C. A. Washburn, formerly United States minister at Paraguay, and at present residing in San Francisco, Cal., wherein Mr. Washburn stated that he was well acquainted with Duffield, whose real name was Kelly. In order to verify this assertion and procure further information on the matter, the Department of State wrote to Mr. Washburn asking for such particulars as he might have or could procure, and received the following reply:

SAN FRANCISCO, *June 25, 1881.*

SIR: Your letter of the 24th ultimo was only received this morning. I knew John A. Duffield from the day of my first landing in Paraguay, in November, 1861, till he was carried off a prisoner into the interior, in 1868. He often talked to me of his life previous to his going to Paraguay, and I probably knew more of him than any other man in that country or than any one living now. From what I remember of his talk, he was born in Mississippi, and, early in life, drifted to the West, where he brought up in Oregon, about 1855 or 1856.

From this place he went to Chili, where he lived for a year or two, and then made his way across the Cordilleras to the valley of La Plata, and finally reached Paraguay, about 1858 or 1859. His occupation there was that of a drayman, and, as far as I know, he had no relations, or at least he never spoke of having any to me. In my "History of Paraguay," a copy of which is, or ought to be, in the State Department, may be found a long letter from him to me, giving an account of his adventures after I left the country, when forced to go into the interior with the others, mostly English, who had taken refuge in the United States legation. He left in my house an iron safe and a couple of trunks or chests. The latter, he wrote to me afterwards, contained clothing, and had, besides, false bottoms, under which was concealed a large quantity of Paraguayan jewelry which he had purchased from the natives, and which amounted in value to the large sum of \$30,000. After the capital was taken by the allies, he

wrote to me about this jewelry and requested me to assist him in obtaining it, or compensation for it, from the Brazilians who had entered my house and taken possession of all they found there. I could do nothing for him, as I had no evidence but his own word that his trunks had ever contained any such valuables. I had but little faith in his claim, as if he had such property it was very strange his not giving it into my possession and taking a receipt therefor. The coin which he had, he gave into my hands, and I delivered to him a draft for the amount on my correspondents in Buenos Ayres, Messrs. S. B. Hale & Co., which he afterwards sold to my successor, McMahon.

The letters I received from Duffield are now in the East, and I cannot lay my hands upon them for several weeks. As soon as I can find them I will examine them again, in hopes that there may be some clew to a disposition of his property in the event of his never appearing to claim it.

The statement made to our consul at Buenos Ayres by Dr. Newkirk, of Goya, that I had written to him (Newkirk) that Duffield's real name was Kelly, is a most impudent falsehood. I never heard, knew, or suspected that he had any other name than John A. Duffield, and, more than that, I never wrote a letter to Dr. Newkirk on any subject whatsoever.

I have the honor to be, very respectfully, your obedient servant,

CHARLES A. WASHBURN.

Hon. WILLIAM HUNTER,

*Second Assistant Secretary of State.*

A later communication from Consul Baker to the Department of State conveys the information that, according to a letter from Peter Newkirk, of Goya, the two years having elapsed allowed by law for the heirs or legal representatives to present themselves, the assets of the estate of John Duffield, amounting to \$12,000, have been turned over to the *fiscal* of the court, to be covered into the treasury of the province of Corriente, in accordance with the provisions of the local law. The representatives, however, should they be discovered, can, at any time within twenty years, institute proceedings to recover the property.

**Chilian military tariff in Peru.**—Minister Christianity, writing under date of May 29, 1881, submits the following to the Department:

The Chilian military authorities having established a tariff of customs duties on imports and exports, which I presume will be adhered to while their military occupation of the Peruvian littoral shall be continued, and as that occupation may last for a long time, I have thought it might be well that our merchants and shipowners should have information upon the subject, inasmuch as it might affect their action in any question bearing upon commercial adventures to Peru. For these reasons I here inclose a decree of Admiral Patricio Lynch, commander-in-chief of the Chilian forces here, dated the 24th instant, but not published until the 27th instant, when it appeared in the "Orden" and the "Actualidad," of Lima, and in "El Dia," of Callao.

*Patricio Lynch, Rear-Admiral and General-in-Chief of the Army of Chili:*

Whereas I have on this date decreed the following:

Considering that it is just that the Government of Chili should obtain from the territory occupied by their military forces all the benefit compatible with the interest of its commerce and industry—

I decree:

#### DUTIES UPON IMPORTS.

ARTICLE 1. The merchandise imported into the port of Callao shall pay a duty of 25 per cent. upon its value, with the exception of the following, which shall pay:

ART. 2. A duty of 15 per cent. upon—

Tar and pitch for use of ships.

Animals alive or killed and dressed.

Quicksilver in jars.

Charcoal and mineral coal.

Oakum for caulking.

Woolen felt (barred) for use of shipping.

Pig iron in bars, unwrought, square, round or in plates.

Iron axles or champs (or hoops).

Fresh prints.

Printing presses and utensils.

Machinery for agriculture and mining.

Flower seeds and garden seeds.

Printing ink.

ART. 3. A duty of 10 per cent. on—

Sub. 1. Chilean products, and those kinds of merchandise free or nationalized in Chile.

Sub. 2. Peruvian products coming from ports occupied by Chilean arms.

ART. 4. A specific duty.

Sub. 1. Brandies, bottles of the common size, 4 pesos per dozen.

Brandies, 42 cents per liter.

Coffee, 15 cents per kilogram.

Beer, 1 peso and 25 cents per dozen bottles.

Beer, 12 cents per liter.

Cigars, 3 pesos per kilogram.

Alcohol (pure), 50 cents per liter.

Gin, 3 pesos per dozen bottles.

Gin, 32 centavos per liter.

Sweetened liquors, 4 pesos and 50 cents per dozen bottles.

Sweetened liquors, 48 cents per liter.

Lard, 5 cents per kilogram.

Snuff, 3 pesos per kilogram.

Burning rum (or burning alcohol), 4 pesos per dozen bottles.

Burning rum (or burning alcohol), 42 cents per liter.

Havana tobacco, 2 pesos per kilogram.

Any other tobacco, 1 peso per kilogram.

Tea, 75 cents per kilogram.

White wine, 32 cents per liter.

White wine, 3 pesos per dozen bottles.

Red wine, \$2.25 per dozen bottles.

Red wine, 25 cents per liter.

Paraguay tea, 6 cents per kilogram.

Sub. 2. Products of Chile and those naturalized in Chile, subject to specific duties, shall pay 25 per cent. of those established in last above.

Sub. 1. Peruvian products coming from ports occupied by the Chilean arms shall pay the same duties as Chilean products subject to a specific duty.

ART. 5. The valuation shall be according to the Peruvian tariff of 1880.

ART. 6. The collector of customs will prescribe the special rules and modes of proceeding to which the documents shall be submitted, which shall be presented for dispatch.

ART. 7. All other duties upon importation in force at the time of occupation shall be collected in the form which the chief collector of customs shall determine.

ART. 8. All merchandise which shall be disembarked should be immediately dispatched for consumption. If from exceptional circumstances, properly certified by the chief collector of customs, it shall not be possible to dispatch from the port the merchandise disembarked, these may be deposited in the stores of the custom-house for fifteen days. The compensation for storage shall be equivalent to 2 per cent. of the value of the merchandise. If at the expiration of fifteen days, the merchandise shall not have been dispatched, the collector of customs shall proceed to sell them at auction to the highest bidder, and after deducting the costs of the sale and the duties due, the residue shall remain in deposit to the credit of the party entitled thereto.

#### EXPORT DUTIES.

ART. 9. Every product or manufacture which shall be exported by neutrals shall be free of duty (except)—

ART. 10. There shall be excepted from the last above article (9) the following, which shall pay:

Cotton, each 100 kilograms, \$1.25.

Grained sugar and muscovado, each 100 kilograms, \$1.25.

Sugar, concrete or pressed in cakes, each 100 kilograms, 80 cents.

Hides of horned cattle, each 30 cents.

Alpaca wool, for each 100 kilograms, \$5.

Common wool, for each 100 kilograms, \$2.25.

Bar silver and old silverware, per kilogram \$1.40.

## PAYMENT OF DUTIES.

ART. 11. The duties may be paid, at the option of the payer, (1) In the silver peso of any nationality, provided always that, by weight and standard, they shall not be worth less than those of Chili; (2) in gold coin, computing the peso at 38 pence each; (3) in the fiscal bills of Chili at such rates of discount as shall be fixed by this head-quarters within the first two weeks of each month.

ART. 12. This decree shall take effect from and after the 8th of June, proximo.

The decrees of the 22d January and the 15th February last are repealed.

Let it be recorded, published, and an account given to the supreme government for its approval. That it may be brought to the knowledge of all, let it be published in the daily papers and posted in the most public places in this city and of Callao.

Given in the House of Government in Lima, this 24th of May, 1881.

PATRICK LYNCH.

MANUEL B. DIAZ B., *Secretary-General*.

*Patrick Lynch, Rear-Admiral and General-in-Chief of the Army of Chili:*

Whereas I have this day decreed as follows:

Considering that it is proper to establish proper regulations for the internment (conveyance to the interior) and exportation of merchandise—

I decree:

## FOR INTERNMENT.

ARTICLE 1. For the internment of merchandise, Peruvian ports in which no custom-houses have been established shall be considered as minor ports and as dependencies of the custom-house at Callao.

Consequently, all merchandise that has paid the duties charged at that custom-house may be sent to those ports.

ART. 2. Merchants desiring to avail themselves of the privilege granted by the foregoing article shall to that end obtain a custom-house permit in triplicate, in which, in addition to the quantity, kind, and weight of the goods, the port of their destination shall be stated, together with the name of the vessel which is to convey them.

One of the copies shall be left at the custom-house, another shall be delivered to the party interested, and the third shall be sent to the port of destination, so that the commander of the blockading forces, or of the military forces of the place, may permit the discharge of the goods.

ART. 3. When the goods which it is desired to send to the ports to which this decree refers may, in the judgment of the collector of customs, be appraised on board without the necessity of discharging them, this shall be permitted, on payment of the proper duties in cash and security being furnished that any difference that may be detected on their discharge in the port of destination shall be made good.

ART. 4. The collector of customs shall adopt such measures as he may deem most suitable for the protection of the interests of the treasury, even though they may modify the foregoing provisions, and he shall duly report the adoption of any such measures to the Treasury Department.

## FOR EXPORTATION.

ART. 5. Merchants wishing to export sugar, or any article subject to export duties, from any port lying north or south of Callao, may do so by complying with the following provisions:

1st. They shall present an application to the collector of customs at Callao, in which is mentioned the name of the port (or ports) in which the goods are to be discharged, together with the number of quintals or the quantity which it is proposed to export.

On arranging for the payment of duties on the merchandise to be exported, the parties interested shall furnish a certificate of deposit, or a promissory note, indorsed to the satisfaction of the collector, by way of security for the amount of those duties.

2d. The payment of said amount shall be required, if, during the period which shall be fixed by the collector, and which shall not exceed one month, it shall not be satisfactorily shown that the exportation has been impossible, owing to some unforeseen occurrence, or to *ris major*.

3d. Notwithstanding the provisions contained in the foregoing paragraph, the collector may require the payment of the export duties to be made in cash whenever he shall think proper so to do.

ART. 6. The duties having been paid, or a sufficient guarantee having been furnished for their payment, the collector shall issue an order in duplicate, in which shall be stated the name of the vessel which is to receive the goods, the exact quantity of

the latter, the name of the port (or ports) in which they are to be discharged, and any other particulars that may tend to prevent abuses.

Both copies shall bear the approval and seal of the military commander of Callao.

ART. 7. The order referred to in the foregoing article shall be delivered to the party interested, and shall be considered a sufficient permit by the commanding officer of the blockading force, or by the military officer in command of the port from which the exportation takes place.

The military commander, or, in his absence, the commander of the blockading force, shall retain one of the copies of the order, for the purpose of sending it, as speedily as possible, to the collector of customs at Callao, after having certified to the quantity of merchandise shipped.

The other copy shall be returned to the party interested, after the annotation entered upon the one which is reserved has been copied thereupon.

ART. 8. The collector of customs at Callao, as soon as he shall receive the copy sent him by the military commander, or the commander of the blockading squadron, shall proceed to collect the duties on the goods, in case they have not yet been paid.

ART. 9. Any exports made in violation of the foregoing articles will render the party making them amenable to the penalties provided for the prevention and repression of smuggling.

Let it be recorded and communicated.

Therefore,

To the end that it may become known to all, let it be published both in the newspapers and handbills, and let the latter be posted in the most public places of this city and of Callao.

Done at Lima, in the Government Hall, May 25, 1881.

P. LYNCH.

MANUEL DIAZ B., *Secretary-General*.



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## C





COMMERCIAL RELATIONS OF THE UNITED STATES.

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2333

REPORTS

FROM THE

CONSULS OF THE UNITED STATES

ON THE

COMMERCE, MANUFACTURES, ETC.,

OF THEIR

CONSULAR DISTRICTS.

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No. 11.—September, 1881.

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II SEPT



CONSULAR REPORTS  
ON  
COMMERCE, MANUFACTURES, ETC.

---

SEPTEMBER, 1881.

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CONTINENT OF EUROPE.

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AMERICAN PORK IN SWITZERLAND.

REPORT BY CONSUL BYERS, OF ZURICH, SWITZERLAND.

Referring to obstacles placed in the way of free importation of American pork into Switzerland, and especially as to this canton, I beg to state as follows:

There exists a government order here, dated May 27, 1878, forbidding the importation of hams, bacon, &c., whether from America or elsewhere, unless said importation is accompanied by a certificate that the meat is "healthy." If no such certificate is presented, the meat must then be submitted to a microscopic examination for trichinosis.

This certificate is to be charged for at the rate of about 25 cents a ham, thus precluding, as a result, a greater part if not all the profits expected on the sales.

In cases of German meat imports into Switzerland, the burden is not so great, as "health certificates," without microscopic examination, are easily obtained there, and pass the meat into this canton, in lieu of the official examination here—the heavy charge, too, of 115 francs on every hundred hams is avoided.

The practice has been to be especially severe in the execution of this order as to *American* hams, as certain interested parties have frightened the population into the belief that eating American hams is simply to court death. The result is, American hams can scarcely be sold here at all, or, if sold, the dreaded word "American" is left off, and the meat is offered as coming from Germany.

I have endeavored to point out to the officials of the canton the injustice of their regulations, and, I am glad to say, with most favorable results. The authorities here to-day told me that in consequence of my representations, and of certain action of the general government, they will consider the order to which I have referred as *void* or *revoked*,

and a proposition to revoke it formally will be made at once to the council. I think this will end all difficulty in the matter as to this canton. I am, however, of the opinion that the first time trichinosis is found in American hams the scare will be renewed, and severe regulations introduced again. I am further of the opinion that our government should promptly resort to an official inspection at slaughter-houses of all meats exported.

Proper and careful inspections by American officials would probably be respected all over Europe. Without such action the misunderstandings and troubles of the past, as to exported meats, are liable to be renewed in an aggravated form.

S. H. M. BYERS, *Consul*.

UNITED STATES CONSULATE,  
*Zurich, June 25, 1881.*

## THE TRADUCTION OF AMERICAN MEATS IN GERMANY.

REPORT BY CONSUL FOX, OF BRUNSWICK.

I have the honor to inclose an extract from the Braunschweiger Tageblatt of June 15, with translation, the same being the synopsis of a lecture delivered before the German Health Society in Berlin in relation to American meats.

In reference to the attack on canned corned beef, I only can say that I have eaten the Chicago and Saint Louis brands ever since I have been here, and have never noticed the slightest defect; neither has any been brought to my notice. As many of my acquaintances partake of this meat daily, I am sure that I would have heard it if there were any complaints to be made. As Geheimer Rath. Roloff asserts, it is probable that the meat is eaten in fourth-class restaurants; it does not, however, alter the fact that it finds its way to the first tables of the land.

I often hear the cry "You are killing us by *competition*," but never the complaint of *poison*.

WILLIAM C. FOX, *Consul*.

UNITED STATES CONSULATE,  
*Brunswick, June 17, 1881.*

[Translation of article from the Braunschweiger Tageblatt.]

### THE SANITARY DANGER OF IMPORTING AMERICAN MEATS.

In a late sitting of the German Society for the Maintenance of Public Health, Privy Counsellor Roloff discussed the sanitary risk in importing American meats.

We commend to the earnest thought of our readers the following communications, coming as they do from such recognized authority. Beginning, Herr Roloff laid great stress upon the necessity for rules to prevent the consumption of the flesh of diseased animals. He said, in course of time we have become acquainted with various diseases in animals which render their meat unfit to be eaten, while formerly such animals were slaughtered and no further notice taken.

The best possible guaranty is given by the institution of public slaughter-houses, and in order that inspection previous to, as well as after, death is possible, slaughtering there should be made compulsory. It is possible that certain stages of disease could be discovered in living animals with certainty, whereas after death the traces would disappear or the existence could not be established. Such diseases as tinnen,

lungencirrhosis, and trichinæ can be easily detected after the slaughtering; the inspection is, however, uncertain if the meat has been cut up, or that of several animals has been mixed together. The inspection for trichinæ is easy from the fact that we know the parts where they exist; these parts are removed, and if they are found to be free, the swine can be pronounced clean. If the flesh of a swine has been mixed, and especially if that of several swine has been brought together, the inspection is then difficult, as the infected parts cannot be reached. Similarly difficult is the inspection of beef (*rindfleisch*), known to the trade as American corned beef. The American statistics show that from July 1, 1876, to June 30, 1877, 23,750,000 pounds (English) of bacon and hams, and from July 1, 1877, to June 30, 1878, 28,000,000 pounds, equal to 25,000,000 German pounds, of meats, sausage, especially canned meats (of which there were 5,000,000 pounds), were imported.

It is well known that trichinæ is of frequent occurrence in America; therefore sausage, bacon, and hams produced there must be considered very dangerous.

Inspections at different points show that from 1 to 4 per cent. of these preserves contain trichinæ. As may be easily foreseen, trichinæ will increase in America unless steps are taken to prevent it. In latter years, another disease among the swine has prevailed in America, a malignant epidemic, which, as a rule, is deathly. For instance, in the previous year 1,390,000 swine died of this disease in the State of Illinois. Experiments in feeding the carcasses of these swine to others brought on the same disease with deathly results. Experiments by vaccinating herbivorous and carnivorous animals with dried parts of swine affected with this disease shows that the same is transferable, though in a milder form than by swine. Merely drying and smoking the meat does not banish the contagious matter; that a human being has become sick from eating such meat has not been proven, though it is not at all improbable.

As to the fact that these swine are slaughtered in America there is not the slightest doubt. An Englishman, who has lived there a long time, says in an English periodical that after what he has experienced and seen himself, that large quantities of these animals are used on this side of the ocean in one or another form as edibles; he would, under no consideration, eat pork that he knew came from America. Furthermore, animals are slaughtered in which the disease is in a state of incubation.

Just as little as the inspection of sausage (*wurst*) can be depended upon, so it is with corned beef. In the preparation of this corned meat, the flesh of many animals is mixed together. The upper layer can be healthy while the disease is in the lower one. Many instances of sickness caused by eating corned beef are on record, and in America attention has been called to the danger again and again. If it has not been thoroughly established that these sicknesses have connection with the eating of the meat, the suspicion is nevertheless very strong that such is the case.

In Holland, as much as 99 milligrams of lead was found in many of the cans, a predominance of solder that can be rendered harmless by properly examining the upper layers.

There exists also a cattle disease in America, a so-called Texas fever. This disease was formerly thought to be rinderpest, and as a rule resulted in death in about six or seven days after the outbreak. In latter years this epidemic has made great strides throughout the land, and has not thoroughly disappeared. Animals affected with this disease cannot be slaughtered, because the disease remains latent for some time, and whereas an inspection does not take place in America, preventative measures can only be brought to bear in the fewest instances.

It is an error to suppose that diseased animals are slaughtered because they are of little value. Notwithstanding that the amount of cattle has doubled in latter years, the epidemic has been so great that the price has continually risen.

There is also a difference between cattle raising and cattle mesting. A lean ox costs in Chicago £7, and, after mesting, much more. In New York £16 to £17 is paid for an ox ready for slaughtering; therefore it is not to be supposed that the dealer will set aside oxen even when he notices that the same shows symptoms of disease.

In the communications of the health office (*Gesundheits-Amt*) of late date, there is a report that in one place a business is made of using diseased meat in preparing the canned beef. It is stated that a doctor of medicine, who inspected a certain factory, found 13,000 pounds of diseased horse flesh and mutton; further, 200 pounds sausage (*wurst*), colored with ocher in order to cover up its bad appearance. He says that he never saw such a nauseating mixture of meat in his life.

We have further authority that the flesh of diseased animals is used for preserves. The art of preparing the meat for canning gives no security that all infectious and contagious matter is destroyed.

We cannot admit that American sausage and canned meat are so necessary to our existence that we can pass over their little defects. The 5,000,000 pounds of canned meat and sausage which were imported into Germany in 1876 may be calculated to have been produced from 16,000 half-fat oxen, one-fifth part of the oxen consumed in Berlin. The abandonment of this importation would be much easier from the fact that the price, 1,757 marks, is not reasonable, because the cans are filled with worth-

less meats, which are rich in sinews, &c. Deducting these, a can contains scarcely 700 grams of meat. When we pay 2 marks per kilogram (2 pounds) for tolerable meat, we buy much cheaper than we buy canned meat. In England it is eaten more especially by working people and in fourth-class restaurants.

It must be expected that with our large slaughter-houses the industry of preserving meat will also be started, and then we shall have healthy canned meats at perhaps less prices.

During the discussion Herr Mehlhausen stated that he had used American meats in his family, but had abandoned them as impracticable.

Herr Eulenberg pointed out that in all cases of sickness, produced by eating canned beef, the symptoms were the same as result from eating rotten meat.

Herr Weise believed that many cans contained pork as well as beef.

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## PROHIBITION OF AMERICAN PORK CAUSING HIGH PRICES FOR PROVISIONS IN FRANCE.

*REPORT BY CONSUL BRIDGLAND, OF HAVRE, FRANCE.*

When the unwarrantable order of the French secretary of the interior and commerce, prohibiting the further importation of salt American pork into France, was issued on the 18th of last February, regardless of contracts then existing between the merchants of the two countries, I saw at once that the order could not fail as it then stood to create great difficulty with the pork-packers, bankers, and in fact every interest in our country connected with that staple, so I at once telegraphed the Department:

French *Journal Officiel*, this date, publishes decree forbidding at all ports of entry in France the importation of salt pork from the United States, which has caused consternation among dealers in American produce here.

At the same time I telegraphed General Noyes, our minister at Paris, as follows:

French decree forbidding the importation of salted pork from the United States is simply monstrous. I beg you let me suggest your immediate protest against this decree.

I also saw some of the leading dealers in hog product, who are members of the Merchants' Exchange, and urged them to send a committee by order of the Board of Trade to Paris for the purpose of meeting the secretary and having the order rescinded. This suggestion of mine was complied with, and Mr. Felix Faure, a merchant of high standing and one of the judges of the tribunal of commerce of Havre, was made chairman of the delegation. Upon his arrival at Paris with his delegation he sought an interview with the secretary, who refused to see him and his delegates on the ground that the sanitary condition of the people of France was paramount to the commercial interests that he and his delegates represented; which fact was telegraphed to the Chamber of Commerce here.

I at once took the first train for Paris, and had an interview with General Noyes, who met me in a most energetic and intelligent manner, and at once put himself in communication with the State Department and the French secretary of commerce; he fully agreed with me as to the unwarrantable order, and has in my opinion done everything in his power to have it rescinded. I think the energy shown in the matter at that time, say on the 21st day of February, resulted in the rescinding of that part of the order that was without precedent, which was the for-

bidding of merchants of France complying with their telegraphic and written contracts with merchants of the United States.

I have watched with interest and care the manipulation that has been going on in Havre for the last three months, under an order of inspection with microscopes.

The first order was given to the sous préfet, Mr. Joucla Pelous, to select veterinary surgeons to make inspection, which lasted only about three or four weeks. As these horse doctors did not report enough trichinæ to satisfy the department at Paris, they were all dismissed by order of the secretary, and a delegation of professional scientists sent here from Paris and placed in the headquarters of the sous préfet, where little slips of hams and shoulders were handled under the microscope to prove that there was the large percentage of 25 or 30 per cent. of American salt meat containing trichinæ. The sous préfet told me in the presence of others that when one ham or shoulder was found affected with trichinæ in a case, they condemned the whole case; and, as the cases contained from 300 to 400 pounds, with 25 to 30 pieces, and from hogs perhaps of four or five different States, as the meat was principally from Chicago, and Chicago being the great pork-packing center of the world, I thought this inspection was as unjust as the original order of the secretary of the interior and of commerce. He said: "This meat that has passed this inspection here you complain of, will have to pass an inspection in the interior before it goes into the hands of the consumer." My reply to this was that such treatment of the subject was not even good nonsense; that the original order was much more respectable than the attempted indorsement to be made by this false treatment of the affair.

I called upon the sous préfet last week, and asked him if he was still condemning a whole case, containing 25 to 30 pieces, because one piece contained evidences, as he claimed, of trichinæ. He said, "No"; that he had used his influence with the department, after his interview with me some weeks ago, to inspect every piece in the box; but he further said, with a shrug of the shoulders, "The result is the same; there will be from 25 to 30 per cent. of the meat we have inspected condemned in consequence of trichinæ."

So the Department may be assured that that is the standard to be fixed in the report of the French Government, if not higher, and that there would be no backdown therefrom, unless, indeed, the reduction in the stock of American salt pork, as shown at this port, from 14,000 packages on the 1st of June last year to 2,500 packages on the 1st of June this year (and but for the delay of the delivery of this meat in consequence of this false inspection, there would not be 50 cases of salt meat in this port to-day), should bring about a reconsideration of the subject.

The price has gone up within the last month 60 per cent.; and before the order is rescinded, if ever rescinded, the working people of France outside of the farming interests will rebel, as they are now doing in a quiet way, against prices which are to protect two-sevenths of the population of France, who are engaged in French farming products, when the five-sevenths are to pay for that protection.

Meetings have already begun among consumers, consisting of mechanics and laboring people of France, in protest of the order, and thousands of working people of Havre have signed a petition asking for its rescinding. Beef in the markets here has advanced 25 per cent. in the last six weeks; poultry and other articles of flesh-food proportionately. The sanitary interests manifested by the secretary, in my opinion, has

nothing to do with this business, as all intelligent people in and out of the United States should know, for from the landing of the first African slaves in our country they have been fed upon corn bread and salt pork almost to the entire exclusion of other animal food. These poor slaves worked upon this kind of food from ten to twenty hours out of the twenty-four, at the point of an overseer's lash in many instances, and at the same time, as a rule, lived much longer than their masters, who fared sumptuously every day. In fact, there is scarcely a family in the United States to-day that does not eat more or less of the hog product every week, and where can such a race of fifty millions of people be found on the face of the earth outside of our own magnificent country?

If the French people could have been furnished with substantial nutritious meat as our own have been for the last hundred years, it is quite evident that the French Government would not have to reduce its standard every five or ten years in order to get the men to fill up its ranks in the French army. More French people have died in one week for the want of this nutritious food than have ever been made sick by its use in one hundred years, so it is easily seen by any sensible person that the sanitary condition of France had nothing to do with this nonsensical order. As France has more gold than any nation of the world, she proposes to keep it and stop the balance of trade that is now in our favor, and in the next place to gratify the demands of the farming interests by breaking down the competition with their farm products.

It seems to me that our remedy consists in reprisal unless this unreasonable order is rescinded before the sitting of our next Congress. There is not 10 per cent. of wines imported into the United States from France that are really pure wines, as I am informed. There is scarcely a steamer coming from Spain to this port that does not bring a cargo of cheap Spanish wines that are compounded and shipped as genuine French wines. Log-wood is used by the ship-load in the manufacture of *vin ordinaire*. With a severe inspection upon French wines, as the French are making upon our American salt pork, there would not be 10 per cent. of the wines admitted into our ports. Why should we not exclude French silk fabrics as the French exclude our cotton fabrics? They cannot exclude our raw cotton without having the grass grow in the streets where their cotton factories are established; there are a hundred other articles that France produces and ships to us, while she excludes a hundred and thirteen articles of our production, and will not even admit them under a tariff; among them, plated silver-ware.

Heavy tonnage dues on French ships would hurt her badly just now, while she is lavishing her money on ship-building and ship-running in order to build up her mercantile marine, and she could not hurt us much in retaliation, as we have no steamers running to France and but few sailing ships.

J. A. BRIDGLAND, *Consul*.

UNITED STATES CONSULATE, *Havre*, June 14, 1881.

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## AMERICAN PORK IN BELGIUM.

REPORT BY CONSUL WILSON, OF BRUSSELS, BELGIUM.

In my dispatch No. 142, and dated the 23d May last, I informed the department of a reported discovery of trichinæ in American pork at Charleroi, and of my intention to personally investigate the matter.

Having made this investigation, I have now the honor to report its results:

On arriving at Charleroi, I went at once to the "abattoir," where all the fresh and salted meat used in the town are reputed to pass an examination, and on making my mission known to the director of this establishment, he very politely informed me that he had found trichinæ in American pork recently arrived there, and invited me to his examining room to witness for myself, through his microscope, the presence of the parasite.

On examining the meat submitted to me, I found, sure enough, large numbers of encysted trichinæ in it, but when I asked him if he could positively certify that it had indeed come from America, he frankly confessed he could not positively assert that it had, as the records of his office grouped together in one column all foreign salted meats; but that he thought he could identify the meat by the mark upon the cases in which it arrived. I replied to him that whilst this would not still be positive evidence, I would be glad to have it, as well as the quantity of meat thus affected, for I was about to make a report of this case, and unless I received from him this information, well authenticated, I should report his uncertainty of the origin of the pork. This, he said, he could not just then do, but promised that it should be furnished with the least possible delay. I have now waited for the report sixteen days, but have not yet received it, and am therefore led to believe that, whilst it is not improbable that the pork came from America, the gentleman has been unable to verify that fact, and that, consequently, an injustice has been done our exporters by the publication of his article without the most positive evidence of the origin of the meat.

I brought with me back to Brussels a portion of a salted shoulder, which I was assured contained trichinæ, but, on examining it with a powerful microscope which I possess, was unable to discover trichinæ in it.

On my return to Brussels the next morning, I found another report of trichinæ in American pork in this city, and immediately went to inquire into the particulars of this case. I was again conducted into the room for the microscopic examination, but although the gentleman in charge kindly offered me every facility for examination, neither he nor I could discover this parasite in the specimen examined. Failing to discover trichinæ in this case, I again made the request that all the information possible relating to the origin of the reported trichinosed pork and the quantity affected should be furnished me with the least possible delay. This was again kindly promised, but up to the present no such information has been received.

It is but justice to both these gentlemen to state that they seemed kindly disposed to give the desired information, and my only explanation of their failure to furnish it is, that they have no certain means of ascertaining exactly the origin of salted meat presented for their inspection; for, on a personal examination of the printed forms for the record of meat received for inspection at Charleroi, I found one column devoted to "*Viande salée indigène*," or salted meat of Belgian origin, and another for "*Viande salée exotique*," or salted meat of foreign origin, but nothing whatever to indicate the country whence the exotic products come.

From this, and the almost impossibility of tracing to its origin every piece of meat brought to them for inspection, I conclude that with the most sincere desire to be truthful in their reports these gentlemen have great difficulty in always determining the origin of salted meats presented for inspection; but I nevertheless think it an injustice to our exporters to publish in a public journal such report as those to which

I have referred without the most conclusive proof of every statement therein made.

As an evidence that such reports are not likely to induce the Belgian Government to depart from its wise and sensible policy with regard to the admission of not only our pork, but all our other food produce, I here quote the translation of a speech made in the Chamber of Representatives, on the 23d May last, by the minister of finance, in reply to the advocates of protection to Belgian agriculture. On that occasion the minister said as follows:

If the importation of grain and salted meats from America have not bettered the condition of our agriculturists, they have at least created a situation against which the government is powerless to act. If these importations damage the interests of a certain class, they benefit and indeed are indispensable to the masses of our people. Whether it be that our population has outgrown the agricultural resources of the country, or that the people are not contented to live in the frugal manner of former years, it is a fact that Belgium cannot now produce enough of food to feed her own people.

The number of live cattle imported from America into Belgium is insignificant, but of wheat and salted meats there is a great quantity, and it is only by the aid of America that we can now properly nourish our industrial and agricultural classes. These classes now consume the wheat of the United States instead of rye, which in former years constituted the base of their diet; and the pork of Chicago enters to-day into habitations where twenty years ago the only nourishment of the people was this rye bread.

To stop these importations would be to devote the working classes to misery, if not to death; to obstruct their entry by means of customs duties would be to impose on the masses prices which would only benefit the land-owners and enable them to keep their rents at the present high rates, and that would necessarily tend to augment the price of labor, for if the price of food produce increases the wages of the laboring classes must increase also, and costly production would render it impossible for our manufacturers successfully to contend with foreign competitors, seeing that our exportation depends as much upon the cheapness of our products as their good quality. It is thus that some amongst us, in order to protect the agricultural interests of the country, and prevent the owners of agricultural lands from suffering that reduction of their rents which the common and universal law of supply and demand imposes, would have us, by stopping these importations, make a compact with famine, and deliver our industrial and laboring classes to misery, decline, and ruin!

But notwithstanding this very sensible speech of Monsieur Graux, the minister of finance, I would remark that the free admission of our pork into Belgium, and the removal of all official interdiction of its entry into other countries, will serve us but little if the people continue to be frightened from its use by the idea that death may be lurking, for all they know, in every case of hams or bacon that comes from our shores, and this fright, I fear, will continue to exist, to the great injury of this branch of our commerce, so long as trichinæ and trichinic diseases are so imperfectly understood, and the people of Europe are taught to believe that American pork only is dangerous.

Having given this subject a very considerable personal investigation, and feeling that I might contribute in some small degree, at least, to allay what I cannot but regard as an almost groundless apprehension of danger from eating American or any other pork, I have ventured upon a brief historical sketch of trichinæ and trichinic disease, with a statement of the conclusions to which most honest and scientific investigators have arrived, as to the danger involved in the use of what is now admitted to be the only available cheap animal food for the poor and laboring classes of Europe; and I herewith forward this paper as a separate inclosure for your consideration.

JNO. WILSON,  
*United States Consul.*

UNITED STATES CONSULATE,  
*Brussels, June 14, 1881.*

## TRICHINÆ AND TRICHINOSIS.

*REPORT BY CONSUL WILSON, OF BRUSSELS.*

Whether the interdiction of swine's flesh as an article of diet by the law given to Moses, or the prohibition of its use to the followers of Mohammed in the Koran, was founded upon any conceived dangerous quality of its flesh we will probably never know, nor are we ever likely to ascertain whether the worms that devoured Pharoah, King of Egypt, were trichinæ or not; but that this parasite has existed in animal tissues from time immemorial is, we are inclined to think, more than probable. It is, however, only within comparatively modern years that the peculiar character of this parasite and its relation to the sanitary sciences have been investigated and made known to the public by competent authority.

In a curious work, published at Halle as far back as 1537, and entitled "Ein Schriftlich Regiment oder der Gesundheit Vorwarung vor Krankheiten," we find the following passage: "Nicht rechtschaffen gesundt Schweinefleisch zehe feuchtung macht, davon dau leichtlich in Addern und Ghedermas vorstopfung erfolget," which indicates clearly that at that date maladies were attributed to the eating of unsound pork.

Whatever may have been the character of the unsoundness here referred to, we have no direct allusion to trichina as a parasite of animal tissues until 1822, when Liedman claimed to have discovered them in the flesh of the hog. Dr. Hilton, of Guy's Hospital, London, mentions the finding of them in the flesh of a human subject in 1830, and this is probably the first account we have of their discovery in the human organism.

In 1835, Owen published a minute description of this parasite, but between that date and 1859, although other observers had not unfrequently found it both in the human cadaver and the flesh of the rat, rabbit, hog, and other animals, no great importance was attached to the discovery. In 1860, however, a vague and undefined malady made its appearance almost simultaneously in several different parts of Germany, and the fact that almost invariably the persons attacked were in the habit of eating raw or uncooked pork, and that many of them fell ill shortly after eating it, aroused a suspicion that this illness was caused by the presence of trichinæ communicated by eating pork containing this parasite. During that and two or three succeeding years, quite a number of distinguished microscopists, among whom may be mentioned Zenker, of Leipsic; Henricus, of Bra; Friedrich, of Heidelberg; Sandler, of Magdeburg, and Virchow, of Berlin, commenced an investigation of the subject, and the result of their labors proved beyond a doubt that the muscular tissues of the hog were not only occasionally the habitat of this parasite, but that bacon so affected, eaten raw or but partially cooked, was not unfrequently the means of introducing it into the human subject, and that a disease sometimes resulting in death did then exist in different parts of Germany as a result of this cause.

The publicity given to this new malady by the reports of investigations made by so many distinguished men created an inevitable panic throughout Germany, and, as is always the case in panics resulting from a threatened yet incomprehensible danger, the number of reported cases of this disease rapidly grew unto fabulous proportions, and the number of deaths resulting from it were doubtless greatly exaggerated.

Plauen, Heidelberg, Magdeberg, Halle, Leipsic, Posen, Weimar, Zena, Hattstadt, Lubeck, Berlin, Hedersleben, and a host of other towns furnished their contingents of cases of the new disease, and accompanied them with alarming and often purely imaginary incidents connected with the eating of the flesh of the now dreaded pig that had so long previously nourished and sustained their people. This trichinomania in North Germany became so general that it is now extremely doubtful whether the deaths among the poorer classes resulting directly and indirectly from the privation of this their accustomed animal food did not greatly exceed the total number of deaths from the disease they so much dreaded. It can scarcely be doubted that under such a panic almost every obscure indisposition experienced by the credulous classes of Germany was attributed to the dreaded trichinæ, and that, consequently, the true cases of illness and death resulting from the ravages of this parasite were greatly overestimated.

But notwithstanding this widespread trichinomania of 1861-'62-'63, and the general awakening of both the medical profession and the people of Germany, and almost all other countries, to what they considered a new and dangerous malady lurking in an important article of diet for the people, it soon died out, and from that date until a very recent period not only have the Germans eaten their pork and sausages in peace and tranquillity, but the lovers of ham and bacon of other countries have also continued to enjoy these favorite dishes without a thought of being consumed by an invisible destroyer.

I shall not here attempt any account of this parasitic disease as it has fallen under the observation and been described by Drs. Dalton, Schetter, Vost, Krombein, Dingler, Lothrop, and other medical gentlemen of the United States. The facts relating to it, as revealed through the microscope, differ but little among all observers; but the deductions from these facts, so far as they attempt to establish the true character of the parasite, as well as the direct cause, nature, and duration of the disease produced by it, are by no means uniform, and are yet, I fear, more or less erroneous and fruitful of much needless alarm. According to my own observations, the fully developed trichina, when taken from the muscles, stomach, or intestinal canal of a living animal, is a white or partially rose-colored worm, about  $\frac{1}{30}$  of an inch long by  $\frac{1}{800}$  thick, which, though it is occasionally found in a free state in muscular tissues, has received the denomination of *trichinæ spiralis*, from the fact that it is most frequently observed in muscular tissues, coiled in a special manner within a lemon-shaped cyst or sack containing granular matter upon which it is supposed to feed during the remainder of its quiescent life, for all observers admit that after it has once become thus encysted, its migratory motion forever ceases, unless, with the muscular tissue in which it rests, it is in some manner conveyed to the stomach of another animal and there set free from its prison-cell by the action of the gastric juice, to commence again the function of reproduction. After it has once quitted the stomach and intestinal canal it ceases to propagate, but while within these viscera it is certainly endowed with wonderful fecundity, the product of a single female being variously calculated at from 400 to 1,000. The accepted opinion now is that within a few days after the birth of the young trichinæ they penetrate the walls of the stomach and intestinal canal and commence their voyage through the muscular system; but, if so, this must be performed quite rapidly, for they have been found in the muscles of the extremities within a few days after being taken into the stomach by eating affected flesh.

The duration of the cell or cyst life of this parasite has not yet, I be-

lieve, been satisfactorily ascertained, yet upon this depends much of its pernicious influence on the human subject. So far as my personal observations have served me, I have never been able to detect the slightest movement or other sign of life in the little animal while thus imprisoned in salted meat, nor do I believe it does long survive in well-salted pork. Notwithstanding the fact that Virchow, the distinguished histological microscopist, records the discovery of living encysted trichinæ in a patient who had suffered from trichinosis for twenty-four years, I cannot but think that this great authority either made a mistake in his premise or conclusion in this case, and that this stage of trichinic life is comparatively short, and accounts in a great degree for the small number of real cases of trichinosis, even among the North Germans who so frequently indulge in raw or partially cooked pork.

Both encysted and free trichinæ have been found in almost every part of the muscular system, but in their encysted state they are much more frequently discovered in the denser portions of the voluntary muscles near their tendinous attachments, and in the muscles of the eye, diaphragm, larynx, and other similar structures, which would seem to indicate that the voyaging life of the animal, when it has once reached the muscular system, continues until it encounters in the tissue subject to brusque motion a barrier against its further progress, and that there it gathers around it its winding sheet and prepares to die. Whether this be a correct theory or not, the fact that the capsular envelope of this parasite, after a certain time, begins to show signs of a calcareous degeneration, often observable to the naked eye, does seem to indicate that this is indeed the mausoleum of the animal.

From this brief summary of the history and habits of this parasite I pass to the consideration of the danger to health and life involved in eating the different forms of fresh and salted pork, which now constitute so large an article of commerce both in Europe and America; and on this subject I would remark that trichinosis is a malady as yet but vaguely defined by the best authorities, some of whom refer its pathognomonic symptoms to the abdominal viscera, while others diagnosticate it by a series of symptoms affecting the general system extending through months and even years.

The former of this class of observers mention their cases of death as having resulted within a few days, or, at most, weeks, after the introduction of the parasite into the abdominal viscera, and as being attended by acute and violent functional disturbance of these organs; while the latter attribute the death to the slow but general prostration of the vital force through muscular absorption and degeneration induced by its presence in this portion of the organic tissue. Injustice to both these classes of observers it should be remarked that they regard both the immediate and remote condition here mentioned as characteristic of this disease, but it is unfortunate that a series of acute and violent local symptoms, often producing death within a few days, should have to be associated with a general chronic indisposition vaguely defined and extending through months, if not years, in order to determine what is claimed to be a new disease found lurking in not only a popular but an almost indispensable article of diet for the poor. And it is equally to be regretted that both the acute and chronic symptoms, usually considered as distinguishing this disease, differ so little from such as are produced by a vast number of other causes, and that consequently, without the greatest possible care, the gravest mistakes may be made in attributing either suffering or death to the presence of this parasite. Even the microscope in the most skillful hands can only supply pre-

sumptive evidence of this, for it is an admitted fact, by almost all observers, that trichinæ are often found in great numbers in the flesh of hogs that have given no evidence of disease whatever; and it is equally well known that they have been found connected with cancerous tumors, tuberculous matter, and in other both morbid and healthy tissues of the human subject, where no previous symptoms had excited suspicion of their presence. Although abundant testimony to this fact might be cited, I will here only mention, that out of 136 persons who had died from other diseases, Professor Zenker, on examining their bodies, found trichinæ in 34. Indeed, as already stated, until about 1860, although trichinæ had often been previously found in the human subject, their presence was not regarded as incompatible with perfect health.

We have already shown how widespread throughout Northern Germany the dread of this parasite became about this time, and also how rapidly it again died out, notwithstanding the resumption of pork-eating by the people. But we are now again, after the lapse of twenty years, confronted with a revival of this terror, accompanied by the official exclusion of the hams and bacon of the United States from many of the markets of Europe under the ostensible plea that there is danger of communicating trichinic disease to the people by eating these articles of our merchandise. That this hasty and, as I think, unjustifiable interdiction of American pork by so many of the governments of Europe has been instigated by other motives than a regard for the public health there can be but little doubt, and it is equally true that it has created among the poor and laboring classes of Europe a widespread distrust of this article of our export that has already seriously affected its sale. The unjustifiable character of this interdiction may be seen in the fact that while American hams and bacon have been excluded from entry into France, Austria, Italy, and Spain, all kinds of salted pork from Germany and Hungary—the admitted home and habitat of trichinæ—have been freely admitted by them without question, and, so far as France especially is concerned, it may be further seen in the fact that the recent commission appointed by the government to inquire into the soundness of American hams has reported that out of 2,000,000 kilograms examined trichinæ were only found in 300, an exemption from this parasite that could scarcely be equaled in the same weight of hams taken at random from any country of the world.

But the evil done to our commerce is by no means the most important evil resulting from these proscriptive decrees. It is a well known fact, that never before in the history of Europe have the laboring classes so required cheap animal food as at present; for in order to manufacture cheaply, the owners and proprietors of all large industrial establishments of the Continent, are compelled to wring from their employés the greatest possible amount of labor for the least possible pay, and it is generally admitted that the cheap pork of the United States is now really the only available animal food within the means of the laboring classes, to sustain them under the strong demand made upon their vital force. But this great, and to them vital subject, is now, in many instances, committed by their government into the hands of a special set of officers, who, provided with microscopes, the use of which is comparatively new to many of them, are expected to make a critical and scientific examination of American pork, and if, as in the case of the French commission, they find trichinæ in 300 kilograms out of 2,000,000, they may pronounce death in the pork, and forthwith, upon the truthfulness of this report, American pork is at once interdicted, or invested with such horror as compels the laboring man to purchase, at prices he cannot well afford,

**CORRECTION.**—The phrase “they may pronounce death in the *pork*,” which occurs on lines three and four from the foot of page 358, in Consul Wilson’s report upon trichinæ, should read “they may pronounce death in the *pot*.”

the home pork products or that of other countries, or, what is still more probable, desist from the use of this diet altogether, under the terror inspired by these official reports, and the uncertainty of knowing whether, after all, he may not be offered the death-producing American pork under another name.

To allay unnecessary apprehension of this dreaded disease, thus engendered by official authority and entertained by ignorant or unscientific persons, I now propose finally to give what may be regarded as the concurrent conclusions to which most scientific investigations of this whole subject have arrived, and they may be thus summarily stated:

1st. That among the swine of all countries there is probably not more than one, in 2,000 affected with trichinæ, and that the parasite is usually introduced into the flesh of this animal by his eating dead rats, mice, and other offal and garbage.

2d. That it is in most cases impossible to diagnosticate the presence of this parasite in the living hog, as they have been found in great numbers in the flesh of animals which before being slaughtered were not only fat and in good condition, but manifested no signs of disease whatever.

3d. That in every case thorough cooking, or, in other words, a subjection of the meat to be eaten to a heat equal to 70° centigrade, will secure entire immunity from danger in whatever numbers trichinæ may be present.

4th. That it is possible for this parasite to exist in the muscular tissues of both man and many of the lower animals without creating any appreciable disease.

5th. That notwithstanding the general and unrestrained use of swine's flesh among most civilized nations, genuine trichinic disease in man, as tested by the microscope and intelligently distinguished from other obscure maladies, is of very rare occurrence, and that the deaths resulting from it are probably less than the mortality resulting from the injudicious eating of some of the most wholesome articles of food.

As a just inference from these opinions of scientific investigations I would remark that as trichinæ are now generally admitted by them to be introduced into the flesh of the hog by his eating dead rats, mice, and other garbage, and as the hogs fattened for the shambles in the United States are almost invariably fed in great numbers together upon good sound corn or the rich residuum of this grain after distillation, in large, clean, and well-kept buildings, where this food is constantly in great abundance before them, they have neither the temptation nor the opportunity to feed upon the dangerous garbage which the hogs of Germany, France, or any other continental country are allowed to eat, and that, consequently, they are in proportion to their numbers infinitely less affected with trichinæ than the hogs of any other country.

In concluding this paper I would add but one other remark, and that is, that I do not believe that the pork of any country is now more affected with this parasite than in the days of Moses, and that consequently the present panic among the people will pass away as did that of 1860. Nor do I believe that any European state will venture long to exclude from the working classes this indispensable article of their food, which the United States alone is now able to cheaply furnish them.

JOHN WILSON, *Consul*.

UNITED STATES CONSULATE,  
Brussels, June 14, 1881.

## IMPORTS OF AMERICAN PRODUCE AT BREMEN.

REPORT BY WILLIAM F. GRINNELL, CONSUL AT BREMEN.

I have the honor to transmit herewith the following statements of the importation hitherto of certain of our products during the first half of the present year.

1. The importation of American bacon at Bremen, from January 1 to July 1, 1881, was: 1881, 42,745 boxes, 19,735,632 pounds; 1880, 20,808 boxes, 9,400,000 pounds. Increase in 1881, 10,335,632 pounds, being an increase over the same period of last year, of more than 10,000,000 pounds. I am happy to submit this proof of the statements in my dispatch No. 55, of March 24th last.

2. The importation of American lard at Bremen, from January 1 to July 1, 1881, was: 1881, 40,000 tierces, containing 11,648,500 pounds; 1880, 59,000 tierces, containing 17,700,000 pounds. Owing to the unexampled high price of lard this year, it having been forced by the Chicago exporter from 8 to 13 cents per pound, the importers have curtailed their orders this year by 6,000,000 pounds.

3. The importation of cotton from the United States to Bremen, January 1 to July 1, 1881, was: 1881, 82,287,784 pounds; 1880, 80,000,000 pounds. Increase, 1881, 2,287,784 pounds.

4. *Indian corn.*—The quantity of Indian corn (maize), imported from the United States to Bremen, during the six months ending July 1, 1881, was: 1,290,000 bushels. The latter half of the year will show a much larger importation of this excellent staple of food; and when it is better known here our shipments will increase almost indefinitely.

Of wheat and rye we have shipped thus far this year very little.

Flour, which our millers prepare in a better manner and at a cheaper rate than those of any country (save perhaps Hungary), has been interdicted by a duty of 25 cents per 100 pounds (*i. e.*, 2 marks per 100 kilogram), laid on by the Reichstag at its last session.

The duty on our cereals in Germany is as follows: Indian corn, barley, and buckwheat, 6 cents per cwt.; wheat, rye, and oats, 12 cents per cwt.

Hay owing to the protracted drought throughout North Germany, is very scarce and dear. It is reported from Schleswig that the farmers are selling their plow horses and killing their cattle for want of forage to sustain them. This is the case to some extent in Oldenburg also.

Herewith find also the import of our tobacco hitherto during the first half of the present year, obtained from figures furnished us by the Bremen bureau of statistics. I also place below for comparison the figures for the corresponding period of 1880.

The decrease in the present year in this product is mainly attributable to the distrust occasioned by the chancellor's cherished scheme of a government monopoly in tobacco, to the uncertainty as to the time of the contemplated annexation of Bremen to the German customs union, and, finally, to the approach of the elections to be held this autumn throughout Germany for members of the Reichstag, which promises to be of a disturbing character.

Table showing the importation of tobacco from the United States to Bremen, for the first six months of 1880 and 1881, compared.

Years.	Virginia.	Kentucky.	Maryland.	Ohio.	Stems.	Seed-leaf.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
1880.....	3, 395, 502	4, 681, 922	2, 035, 114	1, 245, 864	7, 544, 120	1, 581, 062
1881.....	798, 206	2, 989, 640	1, 319, 506	587, 859	5, 329, 449	2, 683, 491
Decrease .....	2, 597, 296	1, 692, 282	715, 608	658, 005	2, 214, 671	.....
Increase .....						1, 102, 429

WILLIAM F. GRINNELL,

Consul.

UNITED STATES CONSULATE,

Bremen, August 5, 1881.

AMERICAN HORSES FOR THE FRENCH CAVALRY.

REPORT OF CONSUL J. A. BRIDGLAND.

An American cavalry horse was unknown in the French remount until Secretary Evarts gave me permission to import them on my own account, as I could find no one else that was willing to put their money in the enterprise, which permission was granted in 1877. More than 600 of our horses are now in the French service, and have made such an impression with the French army officers as to induce the Secretary of War to send last year two of the most trusted officers in the French service, Lieutenant-Colonel Baron Faerot de Kerboech, and Captain de la Chere to the United States to inspect our horses there. This is the first time France has honored our country with such an inspection.

As we have more than 12,000,000 of horses, and have bred for trotters and runners to the neglect of large horses of all work, we have at least 3,000,000 horses suited for the cavalry of Europe and comparatively worthless to us, as we have but little cavalry.

I hope my successor will be able to continue this work, as wealth consists in selling more than you buy, or, in other words, finding a market for surplus products. The American horse belonging to Mr. Lorillard, "Iroquois," winning the last Derby, and Mr. Keene's American horse, "Foxhall," winning the *grand prix* last Sunday, with constant importations of our best trotting stock, including one very fast stallion and four brood mares with foal that arrived on the steamer Canada the 29th of May last, belonging to the Count de Tinguy, show that a little energy and intelligence upon this branch of our exports cannot in my opinion fail in producing a great benefit to our stock-raisers in the United States. To send France horses and the corn to feed them would be a climax. Notwithstanding the high price charged by the French Trans-Atlantic Steamship Company for the transportation of live animals from New York to Havre, there is still something doing all the time. New steamships are now on the stocks in France and in England, being built purposely for the live-stock trade between the United States and France which cannot fail to largely increase the traffic if intelligently managed by dealers.

J. A. BRIDGLAND,

Consul.

UNITED STATES CONSULATE,

Havre, June 14, 1881.

## TRADE BETWEEN LA GUAYRA AND THE UNITED STATES.

REPORT BY CONSUL SILER.

In concluding my administration of this consulate, a recapitulation of its transactions may be looked for by the Department. The brief period of my residence here, and the unexpected order of my transfer to another post of duty, renders it impossible for me, at this time, to give more than a brief *résumé* of transactions for the half year ending June 30, 1881.

During this period, fourteen American vessels (one steamer and thirteen sailers) entered and cleared at this port, aggregating in tonnage 6,220 tons, and bringing cargoes from the United States valued at \$128,634.

During the same period of last year, only four American vessels entered this port, with a tonnage of 1,103 tons, and bringing cargoes of the value of \$24,170.

The value of exports from this port to the United States during the first six months of this year, according to invoices certified at this consulate, was \$1,177,781.48, against \$443,886.74 for the same period of last year.

The value of merchandise entered at the custom house of this port, for the six months ending June 30, of this year, amounted to \$959,829.73, against \$445,647 for the same period of last year. These figures indicate a rapidly increasing trade between the United States and this country. I do not anticipate that the same ratio of increase will continue, but, with proper management on the part of our merchants, it is reasonable to hope that the footing now gained will be maintained. The new tariff law of this country which went into force on July 1, a translation of which I lately sent to the Department, has tended to cause a temporary falling off in the importation of certain articles from the United States, but will not affect trade in the aggregate.

A spirit of enterprise seems lately to have taken hold of the people of this country, never before known among them. Public improvements are being rapidly pushed forward in all parts of the country. The construction of a railroad from this port to Caracas, the national capital, is going on, with every prospect of speedy completion. This enterprise gives steady employment to nearly 900 laborers, at fair wages. The expenses of the enterprise have so far been paid by the Venezuelan Government, but it is now rumored that an English company will soon take the work in hand. These public works, with the remunerative employment which they give to the laboring class, have effectually crushed the spirit of revolution, which has heretofore been the bane of the republic.

Should this state of affairs happily continue, Venezuela has before her a glorious future. Nature has bountifully dispersed precious ores in her mountain ranges, and her plains are unexcelled in fertility. Peace and a stable government are what the country requires, and she now seems to have both. There is no reason why Venezuela should not take the lead in South American republics.

JAS. W. SILER,  
Consul.

UNITED STATES CONSULATE,  
La Guayra, August 11, 1881.

## TRADE OF CHATHAM, ONTARIO, WITH THE UNITED STATES.

REPORT BY COMMERCIAL AGENT BUFFINGTON.

I have the honor to submit the following report of business transacted at this commercial agency for the year ending June 30, 1881.

## EXPORTS.

The excellent sleighing of last winter enabled dealers in wood, logs, and lumber to get from the bush a very large stock of those articles, and caused quite a boom in the export trade from this consular district. As will be seen by the statements inclosed, the value of declared exports to the United States from Chatham for the year ending June 30, 1881, is \$406,081.42, against \$309,265.42 the preceding year, an increase of \$96,816, and from the agency at Wallacebury \$171,474.55, against \$120,682.50; increase, \$50,792.03. Total increase in the exports from this consular district for the year ending June 30, 1881, over the preceding year, \$147,608.03. This, however, does not embrace the entire value of merchandise exported to the United States from this district. There are several points within its jurisdiction, prominent among them, Rondeau, Buckhorn, and Romney, on Lake Erie, and other minor points on the Canada Southern Railroad, from which shipments of wood, lumber, logs, and miscellaneous merchandise (aggregating not less than \$100,000), were made during the year, certificates for which were issued from other consulates.

The principal increase is in wood, lumber, logs, and bolts. It is questionable whether this increase will be maintained the coming year. Even should the present brisk demand for this class of goods in the United States continue, much will depend upon whether there is enough snow the coming winter to make good sleighing; if not, the quantity brought to the river bank for shipment will be much less than last year, and a falling off in the quantity and value of this class of exports will necessarily follow.

## IMPORTS.

There is no marked difference in the value of goods imported from the United States, entered at this port for the year ending June 30, 1881, and the preceding year. The total value of dutiable goods entered here for Canadian consumption for the year ending June 30, 1881, foots up \$96,710 classified as follows:

Agricultural implements.....	\$2,412 00
Books .....	1,890 00
Breadstuffs .....	6,821 00
Boots and shoes .....	1,681 00
Carriages .....	2,170 00
Coal .....	17,667 00
Cottons.....	11,780 00
Earthenware.....	1,968 00
Fruits .....	4,915 00
Hats and caps.....	1,070 00
Hardware .....	14,522 00
Musical instruments.....	1,884 00
Plated ware .....	1,426 00
Provisions .....	8,297 00

Sewing-machines .....	\$2,608 00
Wooden furniture .....	5,645 00
Woolen goods .....	2,236 00
Miscellaneous .....	7,718 00
Total .....	96,710 00
Value of free goods imported from the United States for the same period.	7,165 00
Total of imports .....	103,876 00
Imports for preceding year:	
Dutiable goods .....	\$93,708 00
Free goods .....	18,403 00
	112,111 00
Decrease in imports for the year ending June 30, 1881 .....	8,235 00

The above figures show but a portion of the American goods imported into this district. The leading merchants of Chatham estimate that fully 60 per cent. of American goods sold here are bought from importers at Toronto and Hamilton. The market is well supplied with such American goods as are needed, and, from the best information I can obtain, the quantity and value sold here during the year ending June 30, 1881, show a slight increase over the preceding year.

I feel quite confident there is a good opportunity to increase the sales of American cottons for shirting and sheetings in this market. The quality of the Canadian manufacture is so decidedly inferior to that of American production that the difference in price is more than made up by the superior quality and durability of the goods. This fact is beginning to be generally realized by all who have tested the Canadian and American cottons.

The duty on cotton bleached or unbleached is 1 cent per square yard and 15 per cent. ad valorem, and the same for cotton sheetings, drills, and ducks. If American manufacturers can sell these goods at the prices paid here for Canadian cottons, the duties would make them only about 2 cents per yard higher, and I am quite confident their superior quality would cause them to be preferred, even at the difference in price, to the Canadian manufacture.

Were it not that the Department requests its consular officers to confine their reports to one subject, I should be glad to speak of the universal sympathy manifested by the Canadians of this section for President Garfield, and their detestation of his would-be assassin. This feeling was so universal and genuine that I could not refrain from making mention of it.

H. C. BUFFINGTON,  
*Commercial Agent.*

UNITED STATES COMMERCIAL AGENCY,  
*Chatham, Ontario, August 3, 1881.*

## AMERICAN TOBACCO IN HOLLAND.

REPORT BY CONSUL WINTER, OF ROTTERDAM.

The following statistics of the imports and stocks of American tobacco in Holland will be of interest to tobacco merchants and producers in the United States. Holland has furnished a steady and profitable market for our exporters for many years, and the future bids fair to increase the demand in this market for the better grades of American tobacco. In no country is the consumption of tobacco greater per capita than in the Netherlands.

The following tables show the imports of tobacco to Rotterdam and Amsterdam for 1879 and 1880; and the imports, sales, and stocks in the Netherlands for the last ten years. I have also compiled a statement showing the general import and the consumption of tobacco in the Netherlands for the year ending December 31, 1879, from all countries. It will be observed that the United States stands second in importance as to imports, and first in importance as to the amount actually consumed.

Import of American tobacco in Holland.

ROTTERDAM.				
Years.	Maryland.	Virginia.	Kentucky.	Total.
	<i>Hhds.</i>	<i>Hhds.</i>	<i>Hhds.</i>	<i>Hhds.</i>
1880.....	4, 973	743	530	6, 246
1879.....	5, 290	917	391	6, 598

AMSTERDAM.				
1880.....	5, 295	208	.....	5, 503
1879.....	5, 299	32	85	5, 416

Imports, sales, and stocks of tobacco in the Netherlands for the last ten years.

Years.	Total import.	Maryland and Ohio.			Virginia and Kentucky.		
		Import.	Sale.	Stock 31st Dec.	Import.	Sale.	Stock 31st Dec.
	<i>Hhds.</i>	<i>Hhds.</i>	<i>Hhds.</i>	<i>Hhds.</i>	<i>Hhds.</i>	<i>Hhds.</i>	<i>Hhds.</i>
1871 .....	14, 736	12, 132	11, 917	1, 209	2, 604	2, 499	285
1872 .....	10, 043	9, 069	8, 708	1, 569	974	1, 146	113
1873 .....	11, 937	10, 009	9, 268	2, 310	1, 923	1, 567	474
1874 .....	10, 813	9, 409	10, 928	791	1, 404	1, 821	55
1875 .....	8, 100	7, 244	6, 633	1, 405	856	797	114
1876 .....	15, 659	13, 554	12, 825	2, 134	2, 105	1, 767	432
1877 .....	10, 799	8, 859	9, 528	1, 653	1, 940	1, 741	623
1878 .....	13, 315	10, 917	9, 526	4, 052	2, 398	1, 950	1, 029
1879 .....	12, 014	10, 589	12, 313	3, 255	1, 425	1, 604	908
1880 .....	11, 749	10, 268	10, 119	3, 073	1, 481	1, 479	769

Statement showing the general import and the consumption of tobacco in the Netherlands for the year ending December 31, 1879.

Countries whence imported.	General im- port.	Consumption.	
		Kilograms.	Value.
	<i>Kilograms.</i>		<i>Guilders.</i>
Belgium.....	2, 641, 392	1, 064, 299	536, 244
Brazil .....	106, 830	6, 156	3, 078
Denmark .....	18, 923	633	344
Dutch colonies .....	13, 387, 991	2, 992, 149	1, 482, 580
France .....	1, 470, 473	506, 171	253, 577
Germany.....	6, 875, 263	2, 700, 833	1, 417, 747
Great Britain and colonies.....	5, 198, 804	1, 228, 845	733, 038
Greece .....	601, 299	283, 126	141, 563
Portugal .....	14, 629	14, 142	7, 159
Russia.....	277, 603	1, 072	735
Spain.....	4, 524	4, 524	2, 262
Turkey.....	5, 042	1, 082	541
United States of America.....	10, 637, 453	5, 151, 760	2, 583, 634
Other countries.....	58, 161	43, 504	21, 768
Total.....	41, 293, 587	13, 998, 296	7, 184, 270
Entered at—			
Rotterdam .....	21, 676, 000	7, 392, 000	.....
Amsterdam .....	15, 050, 000	4, 736, 000	.....

I desire to call the attention of the Department of State to the fact that the tobacco merchants of Rotterdam have had occasion to complain against the manner in which samples of Maryland tobacco are drawn by the inspectors of the State tobacco warehouse at Baltimore.

Those samples are often far superior to those drawn by the receivers of the tobacco. Sometimes they are taken in a way that justifies the thought of intended deception. The hogsheads are often filled with good tobacco in the middle, or at each end, and with a very inferior quality in other parts of the hogshead. Now, the difference in value between the sample drawn by the inspector and the actual value of the tobacco is sometimes 40 per cent. and even more, and there seems to be no remedy for the foreign merchants who receive the same, provided the marks and numbers on the hogsheads correspond with those on the sample. The free inspection at Richmond, Louisville, Cincinnati, and other points of shipment causes no complaint whatever, but unless there is a radical change in the manner of inspection at Baltimore, our exporters of tobacco generally, and our Maryland tobacco merchants particularly, will suffer from this unfortunate state of affairs.

JNO. F. WINTER, *Consul.*

UNITED STATES CONSULATE,  
*Rotterdam, June 25, 1881.*

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## AMERICAN TRADE WITH BERMUDA.

REPORT BY COMMERCIAL AGENT WILLIAMS, OF ST. GEORGE.

The statistics of imports and exports are made up at Hamilton, the seat of government of the Bermuda Islands, and cannot be separated so as to apportion its share to the ports of Hamilton and St. George. If this could be done it would be important commercially, as the capacity of the market and the sources of supply are more important to those seeking new outlets for trade.

The importance of the trade of a locality is graduated by its resources. Bermuda at the first glance would appear to rank low in the estimation of the business world, and its trade not be worth soliciting. Exporting less than \$1,000,000 worth, chiefly of potatoes, onions, tomatoes, and arrowroot, and importing about \$1,500,000 worth of goods, does not present a good basis for trade. But this is not the only resource of these islands. A garrison, consisting of engineers, artillery, and infantry, is maintained here, and it is the headquarters of the admiral and his fleet for a portion of the year; and the mammoth dock-yard of the government is constantly employed in repairing and refitting the ships of Her Majesty's navy.

The yield of the crops during the season has been good, but the prevailing price has been unremunerative. The garrison has been cut down by the removal of one regiment, and it is doubtful whether they will soon be replaced. A sufficient force to properly guard and maintain this station will be always perpetuated, and it will be always used as a rendezvous for the fleet.

There is another source of permanent profit to these islands, of which their situation on the confines of the Gulf stream accords them great advantage, and must always render them a safe refuge for disabled and distressed vessels; almost every description of wrecked and disabled vessels is visible here in the course of a year. Many vessels of every

nation have been truly thankful for the location of these islands, and have by them been saved from destruction impending and almost inevitable. The amount required to discharge, refit, repair, provision, &c., these vessels during the last winter, which was peculiarly disastrous to shipping, amounted, as I make it up, to about an average of at least \$300,000.

The materials for the repairs of these vessels is almost entirely drawn from the United States. Their supplies, and the increased capacity of those variously employed in discharging, repairing, &c., to purchase the commodities of other countries, greatly enhance the trade.

Although a large portion of the trade of these islands drifts to the United States, the same could be increased until it was almost engrossed, by proper care and management.

Cotton goods are largely supplied from the United States, but not entirely. Woolen goods are brought from Great Britain, and it is generally accredited there that the United States can furnish none that are reliable. Very inferior British woolen goods are alone procurable here.

In short, the United States could furnish more furniture, notions, clothing, dry goods of all descriptions, in short every thing which a civilized country, with means to pay for it, requires. More than \$100,000 worth of beer and porter is annually consumed here. Some lager beer in bottles is alone brought from the United States; the rest comes from Halifax and England. Halifax ale costs at that place \$14.50 per hogshead of 60 gallons, English ale a trifle more. Freight would be rather in favor of the United States. Good and cheap wines from America, though unknown in this market, would be saleable. Whisky comes from Great Britain and the provinces and is largely consumed. A large portion of tobacco is brought from Canada, and nearly all of the matches in use from Halifax.

There is no prejudice on the part of the merchants nor any tariff discrimination against trading with the United States.

The consumption of coal here is considerable, principally on account of steamers delayed by stress of weather in reaching their ports of destination. The preference is for "Cardiff coal," as many of the foreign steamers are adapted to the use of soft coal. A coal company recently formed here informed me, through their manager, that they should procure a stock of American hard coal, and would be pleased to make trial of any soft coal which might be substituted for the "Cardiff." I mention this in the hope that some of our varied mines can produce such an article at a satisfactory price. The coaling of steamers is evidently on the increase and worthy of the attention of American coal mines.

There are no manufactories on these islands; the products and the industries above mentioned chiefly occupy the inhabitants of these isles.

The imports of potatoes exceed the exports. These islands are dependent for their clothing and food, and no country can geographically furnish them as well as the United States.

I have failed to note the importation of cattle and horses, beef, mutton, and other essentials of existence. These come mainly from the United States. The only daily product is milk, and in that connection I would enter my testimony that without American oleomargarine we would be butterless, especially at this season of the year, because it seems to offer the only resistance to the effect of climate. At other seasons, the article of butter which the merchants of the United States see fit to accord to these islands is far inferior.

The population of these islands, by the late census (a copy of which I inclose), is 13,948. This is independent of the military and naval de-

partment, those on board of distressed vessels, and strangers seeking these islands for health, pleasure, or business, equivalent to at least an average of 3,000 more.

The merchants have learned by experience the utility of direct dealing with those from whom they make their purchases. Formerly they knew only their commission merchants. The great barriers to an absorption of the trade of these islands by the United States are, briefly, the dealing through commission houses, the facility and convenience of purchase and payment with Great Britain and the provinces, and the want of exchange or banking facilities with the United States.

The mere mention of the fact of the first is sufficient without argument to suggest the economy and advantage of direct dealing.

In regard to the second, lines of steamers are ready and eager to supply their patrons, and government drafts procurable at par are great helps to trade.

In regard to the latter, the merchants of the United States regarding their interests should establish a bank with moderate capital, for exchange, assisting the moving of crops, enterprising merchants to purchase cargoes of abandoned vessels, and to receive deposits of merchants. The islanders would take a portion of the capital if required. Such an institution would obviate the necessity of a merchant sending 12 miles to purchase a draft on New York, and paying 2 or 3 per cent. premium therefor, or remitting the same in foreign coin.

In advertising, I would suggest to our merchants to affix the prices, as the foreigners almost invariably do. This is frequently omitted by the American merchant, even in his circular, as pointed out to me by one of our most intelligent and friendly merchants.

A careful perusal of the reports of the consul at Hamilton, the details of which are complete, will enable merchants categorically to look after their individual interests, to the furtherance of which both my consular instructions and inclination incite me.

CHAS. P. WILLIAMS,  
*Commercial Agent.*

UNITED STATES CONSULATE,  
*St. George, Bermuda, August 10, 1881.*

## AMERICAN VS. EUROPEAN AGRICULTURE.

REPORT, BY CONSUL-GENERAL KREISMANN, ON THE PROCEEDINGS IN THE CONGRESS OF GERMAN AGRICULTURISTS, HELD AT BERLIN, AGAINST THE IMPORTATION OF AMERICAN GRAIN AND PRODUCE.

I have had occasion in former reports to refer to the feeling of apprehension and hostility prevailing among the agricultural classes against the steadily increasing importation of American produce into the German Empire. These feelings having found most pregnant expression at an annual meeting, recently held in this city, of "The Congress of German Agriculturists," an influential body composed of most of the large landed estate proprietors from all parts of the empire, I would respectfully lay before the Department, in the accompanying inclosure, a full translation of the resolutions adopted by said Congress on the subject, together with the report, in all its essential parts, submitted in support of the resolution.

The facts that the Prussian minister of agriculture appeared in the midst of the Congress, with an official address of welcome, and that government representatives were in attendance at all the sittings, render the proceedings, as set forth in the inclosure, well worthy of the consideration of our farmers, packers, and exporters of produce.

As in France, where the government, for the purpose it would seem of securing to the republic the support of the peasantry, has issued the decree, on alleged sanitary grounds, prohibiting the importation of American pork, so in this empire also, now that the United States are in a position for selling more largely *to* than buying of Germany, the government is urged to take repressive measures against the importation of our produce.

If, as was expressly stated in the Congress of Agriculturists by one of its prominent members, M. de Mirbach, who, it is understood, holds near relations to Prince Bismarck, the latter is in decided sympathy with what is sought to be accomplished in the premises, it cannot be too strongly enjoined on all whom it concerns to have the greatest care to export from the United States none but the very best of produce of all kinds, and not to furnish, by the importation here of a defective or unwholesome article, a welcome pretext for striking the hostile blow so strenuously desired.

Since the adjournment of the Congress the North German Gazette, the chancellor's reputed organ has editorially stated as follows:

The Congress of German Agriculturists, at its recent meeting, adopted a resolution in which American competition in breadstuffs and meats is represented as endangering the continuance of German grain-production and cattle-raising, and the Imperial Government is requested to adopt such measures as are calculated to avert these ruinous influences. The Congress finds the most effective means for that purpose in carrying out on the one hand the tax reforms, and in affording, on the other greater facilities for transporting agricultural products at cheap rates of freight over railways, as well as by constructing additional means of transport, such as local lines of railway and canals.

If the assertion that the foreign, especially the American, competition is seriously endangering German agriculture, only proceeded from the Congress of German Agriculturists; if the same in England, and France also, apart from the atmospheric influences, had not statistically been shown to constitute the chief source of the agricultural distress of these countries, there might be reason for believing that the Congress in its deliberations and resolutions on the subject had solely or mainly sought to benefit the interest of the great landed estate proprietors exclusively. But both owners and tenants of the medium and small-sized landed estates are, without distinction, threatened by the foreign competition; the depreciation of the products of agriculture and cattle-stock is, moreover, more strongly felt by the latter classes, inasmuch as the cost of production on small farms, owing to the impossibility of employing machinery and steam-power, is out of all proportion when compared with such cost on large landed estates. Nay, the Congress of German Agriculturists represents the solidarity of interests of the small, middle, and larger-sized landed estates without distinction.

On the subject of the increase of import duties on agricultural products, which, as regards Russia and America (whenever the terms "America" or "North America" occur in the proceedings of the Congress, the United States are meant), the Congress wants fixed at rates sufficiently high as to prevent the products of said countries, when exported, from having any advantage over those of Germany in its home market. The journal referred to, in the same editorial article, remarks as follows:

The Imperial Government will have to determine whether and how far the present import duties suffice for the preservation of German agriculture, or whether they should, in any respects, be raised. It would be a mistaken course by an unlimited competition to reduce the German agriculture to a still less productive condition than hitherto, thereby making the future of the whole people dependent on the foreign supply that, under certain circumstances, may entirely or partially fail. The demands of

a member of the Congress for prohibiting the importation of American pork containing trichinæ, of imitations of butter, made up, according to English consular reports, from hogs killed by disease, and of other articles of adulterated food, by which it is sought to swindle the people of Europe, was not occasioned by the interests of the large landed estate proprietors, but by those of the entire population of Germany of limited means, neither the farmers nor the wholesale dealers having to consume these articles of import, endangering life and health, that are thrown in vast quantities on the European market.

Utterances of such a character and from such a source I must regard as importing danger to the American export trade in grain and produce, and as calling for vigilance and energy in preventing a like injury, as caused by the action in the premises on the part of the French Government.

There are plenty of means of protection available to the United States by proper legislation.

The question of the currency standard and the monetary conference at Paris also engaged the attention of the Congress of Agriculturists, and I beg to inclose herewith a translation of the resolutions adopted in the matter. It will be seen that they emphatically declare for the bi-metallic standard.

H. KREISMANN,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Berlin, March 14, 1881.*

*Resolutions adopted and report submitted at the meeting of the Congress of German Agriculturists, held at Berlin.*

#### RESOLUTIONS.

The Congress of German Agriculturists considers the American competition in bread-stuffs and meat a great danger to the future existence of German grain-production and cattle-breeding, and prays the Imperial Government to take such measures as are calculated to ward off these destructive influences.

The Congress of German Agriculturists, with a view to obtaining a more effective protection against the two countries which particularly imperil German agriculture, has taken into consideration the question of governmental, or rather international, treaties for the formation of a customs convention.

The Congress furthermore declares that the prosperous development of agriculture and industry in Germany, as regards the immediate future, principally depends upon the passing of a tax-reform and upon the facilities offered for raising the national trade and commerce between the agricultural districts of the eastern provinces and the industrial districts of the western provinces. The Congress considers the cheap transport of the mass-productions of agriculture and industry on the home railways, as also the construction of local lines of railways and canals, which should be planned with special regard to the transport of agricultural products, to be one of the most important tasks of Germany.

In support of the passage of the foregoing resolutions, the following report was submitted, viz:

When, in the meeting two years ago, the necessity was demonstrated for grain duties, and the fall in the prices of estates and leases, the rapidly increasing incumbrances of agriculturists, and the many bankruptcies were pointed out as signs of declining prosperity, the free-trade journals thought it necessary to represent those arguments as serious exaggerations and to cast all the blame on the ignorance and extravagant style of living of the agriculturists. It will be advisable at this time to transfer the contest for the preservation and defense of agricultural labor to a field where free-traders have hitherto been wont to win—to England—and where, as insisted on by the same, sobriety, intelligence, and capability are indigenous.

The English agriculturist has always been set up as a model, no matter whether it was a question of breeding the best horses, the fattest cattle, the wooliest sheep, and most palatable mutton, or of obtaining the greatest yield in the way of crops, with the aid of the latest inventions. Upon a survey to-day, how do matters stand on those free-trade-vaunted model farms? One of the very best periodicals upon questions of national economy, the London Economist, pointed out, two years ago, that England

was in such an extensive agricultural crisis as had never before prevailed. In spite of the good harvest of 1878, some 815 farmers became bankrupt. The complaints in the United Kingdom were universal. Thousands of acres of good wheat-land were looking for tenants; many landed proprietors were obliged to remit a portion of the rents, in order not to lose their tenants.

These warnings were not heeded; all petitions to Parliament have hitherto been unavailing. For it is not an easy matter to reverse England's economic development, and the results of a policy maintained for a century are now manifest, both as regards industry and agriculture. The British colonial policy is based on the principle of importing the raw material and exporting the manufactured article. In order to attain this object, the cost of production at home must be lower than in the respective countries from which the raw materials are obtained.

Now, this is possible only if the wages are lower, and in order again to keep these low, cheap bread is an indispensable first condition. The interests of agriculture must therefore be sacrificed to those of industry. The cry of the free-traders for "cheap bread" means in fact nothing else than the efforts of industry for cheap wages. In order to be able to supply the whole world with industrial goods, it is essentially necessary to make all regions contribute in the production of the cheapest raw materials and the cheapest provisions.

All countries hastened to respond to this call, and thus England to-day has the pleasure of being able to show that her inhabitants on no account need starve, even though her native cultivation of grain and her own cattle-breeding should perish.

Whoever has money can everywhere purchase what he requires; of course, he gets the preference who can sell cheapest. About thirty years ago, when the first railways were extended to the fertile grain districts of Germany, it was there that the cheapest and most eligible grain market for England prevailed. That was the time when the forests were destroyed and converted into corn-land in order to export more and more timber and wheat. The accumulated wealth of forests of centuries and of a virgin and rich vegetable soil was turned into capital.

This period of exhausting the soil, however, soon came to an end, when shortly after the railways were extended to the granaries of Hungary and in addition to this the Manchester style of wholesale trade obtained very low railway rates for through grain trains from Hungary.

By this means Austria and Hungary became the largest food suppliers for the industrial population of Great Britain. Ten years were required to reach the same result in Russia, and for transporting by means of the new railways there the vast quantities of grain from the fertile fields of the interior to the coast of the Baltic, to find their way thence to Great Britain.

Powerful as the pressure of this competition from abroad was, it nevertheless became apparent that neither Germany, nor Austria-Hungary, nor Russia were able to overwhelm English agriculture. Technical inventions and a model style of tillage of the soil gained a glorious victory over the old methods of farming, and over the soil-exhausting system of the continent.

England's agriculture seemed just as invincible as England's system of free trade. But a change was to come about when America entered the arena, and, furnished with all the auxiliaries which technical science, capital, and richness of soil can supply, entered into the world's trade not as a rival of equal, but of superior, force.

America, with her grain production, has not only now the victory from Germany, Austria, and Russia in the English market, but in a few years also ruined the model farms of England. In order to give a faithful picture of these tremendous events and struggles between the several countries in the English grain market, the wheat imports into England, in periods of five years, from 1845 to 1880, are set forth in the following table:

[Millions of cwts.]

Periods.	United States.	Russia.	Germany and Austria.	France.	India.	Other countries.	Total imported.
1846-1850 .....	3.8	12.1	19.6	5.8	.....	20.4	61.7
1851-1855 .....	8.9	13.0	22.6	4.3	.....	28.7	77.5
1856-1860 .....	17.6	18.5	22.0	10.9	.....	24.7	93.7
1861-1865 .....	44.8	28.0	32.3	4.7	.....	29.7	139.5
1866-1870 .....	36.3	52.4	28.9	4.8	0.5	36.1	159.0
1871-1875 .....	88.5	58.8	17.7	5.7	4.1	42.0	216.8
1876-1880 .....	141.6	39.5	18.1	1.8	13.3	46.6	262.9

*Wheat imported into England in the several years from 1876 to 1880.*

[Millions of cwts.]

Years.	United States.	Russia.	Germany and Austria.	France.	India.	Other countries.	Total imports.
1876 .....	19.3	8.8	2.3	0.3	3.3	10.4	44.4
1877 .....	21.3	10.8	5.5	1.5	6.1	9.0	54.2
1878 .....	29.0	9.0	5.1	0.01	1.8	4.8	49.7
1879 .....	35.9	8.0	3.6	0.02	0.9	11.0	59.4
1880 .....	36.1	2.9	1.6	.....	3.2	11.4	55.2

From this table it will be seen that Germany and particularly Russia, in the quinquennial period between 1846 and 1850 sent five times as much wheat to the British Isles as North America, and that, in conjunction with the Austro-Hungarian back lands, it also continued to be the chief source of supply for the English market for the ten years inclusive from 1850 to 1860. Then was the height of prosperity for German agriculture. During the years 1860 to 1870 Russia succeeds to the first place to give way in turn to North America. Owing to the political events in the Balkan Peninsula and the failure of the crops in 1880, the American competition became predominant. Calculated according to percentage, the import of wheat into England in 1880 amounted to:

	Per cent.
From the United States .....	65.4
From Russia .....	5.2
From Germany and Austria .....	2.9
From India .....	5.8
From Australia .....	7.7
From other countries .....	13.0
Total .....	100.0

All supporters of free international competition regard these figures with great satisfaction, insisting they show how the consumers in the British commercial empire are admirably supplied from every quarter of the globe and that periods of high prices and famine can never return again. Two points, however, will be found to seriously disturb this flattering uncton, to wit: The irremediable state of dependency upon Brother Jonathan for the supply of bread and the terrible distress of the English farmers. The price of wheat which in a long series of decades of years up to 1874 had cost 55 to 60 shillings a quarter, of 480 pounds English, after the appearance of American supplies fell from year to year down to 39 shillings in 1879. This price no longer covered the cost of production in England of wheat, and ruined the farmers. The consequence of this was the abandonment of wheat growing. How fast distress makes progress is seen by the reduction of the area under wheat. It amounted—

	Acres.
In 1874 to .....	3,833,000
In 1875 to .....	3,514,000
In 1876 to .....	3,124,000
In 1877 to .....	3,321,000
In 1878 to .....	3,382,000
In 1879 to .....	3,056,000
In 1880 to .....	3,070,000

This means a falling off of 20 per cent. in the area in six years. The area under wheat at present is half a million acres less than the average of the last fifteen years.

It is impossible to prove more clearly than by these few figures the retrogression of the English cultivation of grain, which is chiefly based upon wheat. Nor can the hope be entertained of compensating for the poor crops by good ones in the future, for the free international competition now existing will not permit of any compensation. It may happen that the worst harvests in England will occur simultaneously with the richest harvests in other countries; and thus in addition to a bad harvest low prices will ensue, whereby the losses will be doubled and trebled. Such an unfortunate combination is not a phantom, but has already made its appearance in all its severity. *The prices have fallen more than the yields of the harvest.* This will be seen from the following table, in which the yield per acre is given in bushels, the average price of wheat per quarter of 480 pounds in shillings, and the value of the whole

crop per acre. The last average value has been calculated by Kains-Jackson, after deducting the seed corn, as also a further deduction of 5 to 15 per cent. for inferior grain.

Years.	Yield per acre in bushels.	Official average paid a quarter in shillings.	Value of crops per acre in shillings.
September 1, 1874.....	31	46. 30	158. 20
September 1, 1875.....	23	46. 25	105. 00
September 1, 1876.....	27	53. 25	154. 00
September 1, 1877.....	22	54. 00	116. 60
September 1, 1878.....	30	41. 80	137. 75
September 1, 1879.....	18	46. 60	108. 00
September 1, 1880.....	26	.....	.....

For the years 1866 to 1870, when the competition of America was as yet moderate, the average value of crop per acre amounted to 167.80 shillings, while the years 1875 to 1879 only realized 118.25 shillings. This means a diminution of yields of 37 per cent. in value. The yield of wheat in bushels diminished in the same time from 29½ bushels per acre down to 24½ bushels for the years 1875 to 1880, which is equal to 20 per cent. What more striking proof can be found of the truth of the theory that everywhere free trade prevails production recedes; the article becomes dearer and the home market is lost. That estates and farms which yield light returns and employ badly-paid laborers are in the same position as factories which are suffering from these evils. They produce but little, and that little costly and of poor quality; and on the other hand, where the agriculturist is adequately protected in his labor, so as to be able to develop his production in quiet and stability, where the produce stands in direct and cheap communication with the home consumer, the yield increases and the cost of production reaches the lowest point. No one in England is any longer in doubt as to where the cause of the crisis is to be sought which has befallen the farmers; and the fabulously-increasing imports from America of wheat, maize, and wheat flour leave no doubt about it. Even the very best farmers lose heart. The advice so carefully given by the free trader to *breed fat cattle in place of growing wheat* has for years past been anxiously followed, but fails to answer nowadays, since America with her *live cattle* and fresh beef has become master of the English meat market.

The Americans themselves know very well how much more advantageous it is to export the valuable compact products of cattle breeding instead of the voluminous product of agriculture. The chief obstacle in the way was the prejudice of the English against fresh American beef. By innumerable experiments and improvement in packing and transport that prejudice has been overcome, and thus the import, which in 1874 was scarcely worth mentioning, has been increasing since 1876 in a truly astounding manner, as will appear from the following statement:

Articles.	1876.	1877.	1878.	1879.	1880.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
Fresh beef .....	170, 711	465, 319	508, 307	563, 598	718, 667
Salt beef .....	213, 342	208, 364	220, 816	242, 864	289, 422
Salt mutton .....	95, 400	135, 250	145, 981	151, 505	148, 788
Salt pork .....	376, 690	304, 249	360, 439	400, 591	384, 057
Preserved meat .....	280, 859	470, 712	439, 900	566, 758	655, 600
Ham and bacon .....	3, 181, 569	2, 820, 482	3, 406, 565	3, 966, 922	4, 370, 860

These figures abundantly show that the American meat has already gained a firm footing in the English market. The imported *live cattle*, fresh and salt beef, at present amount to nearly half of the English beef killed in England; the import of pork, ham and bacon, almost two-thirds of the home production.

The price, which was maintained until quite lately and yielded the Americans enormous profits, is beginning gradually, in consequence of increasing supplies, to fall considerably, and will exercise precisely the same disastrous influences in England's cattle breeding, as the American wheat has already done on the culture of grain. There is only one voice in the matter, and even the supporters of free trade now admit that it will be just as impossible in the future for English farmers to compete with America in the meat supply as in that of breadstuffs. Thus the advice of men of the Manches-

ter school to take another occupation or to emigrate has already become a matter of compulsion for the children of rich England as much as for the oppressed sons of Ireland. Whoever has anything left to him is leaving the faithless home in order to go over into the camp of the victors in the far West of America.

The fact that her agriculture is threatened with danger from America no longer admits of denial. The only question to be considered is whether Germany shall follow the path of England, let her agriculture go to ruin, and let her peasantry be driven to emigration, or whether a national German policy shall be adopted and an effort made to combine the old with the new in a national way, and to carry on uninterruptedly and without violent disturbances from outside the development of German culture and civilization. The care for self-preservation will readily point to the proper course to pursue against the enemy of our independence—a giant enemy, such as scarcely finds his equal in the world of fable. The unexampled augmentation of the American production of wheat may best be seen from the rapid increase of area under wheat, which amounted—

	Acres.
In 1871 to.....	19, 943, 893
In 1874 to.....	24, 967, 627
In 1877 to.....	29, 500, 000
In 1880 to.....	36, 037, 950

Sixteen millions of acres of new land were therefore transformed into wheat fields during the last ten years. What this amounts to is shown by the fact that the total area under wheat in Great Britain amounts to 3,000,000, in Germany to 5,500,000, and in France to 17,000,000 acres. If these three countries were to leave off growing wheat, the area in America would fill up the gap. The State of Minnesota alone cultivated some 2,959,683 acres of wheat in 1880, and in that year more than Great Britain. This gigantic increase of land brought under the plow is the most important factor of all in judging the American competition, for this increase is so tremendous that, even with bad harvests, the total yield of America must, nevertheless, grow larger from year to year. All hopes of our agriculturists of obtaining better prices in the event of an unfavorable American harvest are thus destroyed. The pressure of America on wheat prices must become stronger and stronger for a long time to come. Drought, locust, and other catastrophes can alter the case but very little. Up to the present the average crops have not by any means been large, amounting only to from 13 to 15 bushels per acre. This is scarcely half as much as was formerly reaped in England. The American farmer, however, does very well with such yields. Wheat is the very grain for prairie and for land made arable for the first time, for its thriving depends less upon the cultivation and soil than upon climate and seasons. Rye, barley, and oats demand more labor, and as there is less inquiry for them in the principal market, England, they are only grown for home consumption.

The chief produce of America consists in wheat and Indian corn. In illustration of the development of the growth of grain in America, the following table of crops is presented :

Products.	1871.	1874.	1877.	1880.
	Cwt.	Cwt.	Cwt.	Cwt.
Wheat.....	230. 7	309. 1	425. 0	480. 8
Rye.....	15. 4	15. 0	26. 0	22. 3
Barley.....	26. 7	32. 6	42. 0	?
Oats.....	255. 7	240. 4	410. 0	255. 6
Corn.....	991. 9	850. 1	1, 372. 0	1, 537. 5
Buckwheat.....	8. 3	8. 0	10. 0	16. 7

It will be seen that no increase of production has taken place in rye, barley, oats, and buckwheat, most of it going to home consumption. The same result is shown by the following table of exports of grain, which amount in millions of bushels (0.3 equal to 300,000 bushels) to—

Products.	1871.	1874.	1877.	1880.
Wheat.....	27. 0	53. 3	74. 4	153. 2
Rye.....	0. 9	0. 5	4. 2	2. 9
Barley.....	0. 1	0. 1	3. 9	1. 1
Oats.....	0. 3	0. 5	3. 7	0. 8
Corn.....	34. 5	28. 6	65. 5	98. 2
Flour, in barrels.....	2. 9	4. 3	4. 4	.....

According to value the increase in export of grain amounted in 1874 to about 519,555,700 marks (\$122,940,491); 1877, 693,042,003 marks (\$164,943,993); 1880, 1,120,000,000 marks (\$265,560,000).

It is hardly possible to arrive at anything like an idea of the vastness of this wheat and maize production, except by comparison with that of the most important countries in Europe. According to the calculations of the best statisticians, the average grain production may be stated in millions of hectoliters, as follows:

Country.	Wheat.	Rye.	Barley.	Oats.	Maize.	Buck-wheat.
France (average crop) .....	104.2	28.3	20.2	70.3	10.4	19.2
Russia (1870-1874) .....	79.5	241.5	44.1	195.3	.....	29.4
Germany (1878) .....	41.8	101.2	38.7	119.6	.....	11.1
Austro-Hungary (1869-1877) .....	31.7	40.2	26.3	42.4	22.0	7.5
Great Britain (medium) .....	30.9	0.7	32.9	62.0	.....	.....
Italy (1870-1874) .....	51.8	3.4	3.3	7.4	31.1	5.6
Lower Danube provinces .....	28.7	6.4	13.5	3.0	23.6	1.6
America .....	155.2	8.4	14.7	119.7	510.4	4.6

From this survey it will be perceived that America is the most formidable rival in wheat and maize, and Russia in rye and oats. German agriculture has no need to fear all the other countries, so far as she is not placed under a disadvantage by special differential (discriminating) tariff of freights.

In 1880 the grain export of the United States amounted to 1,120,000,000 marks (\$266,560,000); i. e., more than double, according to value, than in 1874.

It cannot be denied that such an unparalleled increase of grain production must disastrously affect the German native cultivation, unless means of safety are adopted against it. It is not a mere question of friendly rivalry between equally strong nations, but of a life and death struggle that is to decide for all future times whether Germany is to continue to pursue her historic path of development, or is to be cast upon new uncertain ways. Nor can any doubt be entertained that America will in the same manner, as it has the English, overrun the German market with grain and meat, and German agriculture will have to succumb unless so far protected by import duties as to be able to compete at home with America.

In this connection the question of greatest importance to the continued existence of German agriculture arises, namely, the question at what price the trans-oceanic agricultural products can be supplied to the European markets, especially as regards wheat as involving the most formidable competition. In the regulation of cheap and practical means of transport lies to-day, as of old, the weal and woe of agriculture.

The prosperity of grain culture rises and falls in proportion to the growth or lack of means of communication. For German agriculture also there can be no other means of preservation than the closest connection of the grain-producing regions with the consuming manufacturing districts by the construction of canals and local lines of railways. The more extensive the system of water communication becomes, the more powerfully all the national forces will unite and everywhere spread life and prosperity. And if the question is raised what Germany must do in order to preserve her power of defense and sustenance, America may serve her as an example. Only the utmost development of all native energies will lead to the desired object. The former, however, is only possible, if the pernicious influences from abroad are warded off by vigorous means. Means for impeding foreign competition and the harmonious development of all branches of national labor are here in Germany, as in America, the foundation of certain success. In order to afford an illustration of the vast transformation in the German grain traffic, in the last thirty years, and to show how German agriculture has by degrees lost its foreign market, and how the excess of exports has changed into one of imports, the average values in quinquennial periods are set forth as follows, the mark (+) meaning excess of exports, the sign (—) excess of imports:

Years.	Wheat.	Rye.	Barley and malt.	Oats.
	<i>Owts.</i>	<i>Owts.</i>	<i>Owts.</i>	<i>Owts.</i>
1848-1852 .....	+5,440,000	— 202,000	+1,214,000	+ 512,000
1853-1857 .....	+5,625,000	— 1,727,000	+ 758,000	+ 388,000
1858-1862 .....	+3,795,000	— 3,382,000	+ 874,000	— 47,000
1863-1867 .....	+3,927,000	— 3,134,000	+ 609,000	+ 329,000
1868-1872 .....	+2,936,000	— 6,026,600	— 871,000	— 215,000
1873-1877 .....	—1,779,000	—15,974,000	—4,247,000	—5,148,000
1878 .....	—5,454,000	—14,933,300	—4,164,000	—3,114,300
1879 .....	—6,114,800	—26,405,400	—2,568,700	—4,168,000
1880 .....	— 987,300	—13,260,200	—1,851,000	—2,362,100

As regards the shares of the principal competitors in importations into the German market, the best estimates place them as follows:

	From Russia.	From Austria.	From America.
	Per cent.	Per cent.	Per cent.
Wheat .....	24	37	39
Rye .....	62	9	29
Barley .....	10	68	22
Oats .....	56	35	9
Maize .....	2½	5½	92

From these figures it appears that in the German market the American competition as yet only dominates in wheat and Indian corn, Russia, on the other hand, in rye and oats, and Austria in barley. Russia will appear with all the greater force in Germany, as she has already succumbed to American competition in England and France, and has lost her chief market. It would therefore lead to false conclusions to consider at this time only the direct dangers of American production, without looking at its indirect influence also as regards Russia and Austria. Looking at Russia the grain export of the same in quinquennial averages during the last thirty years appear in thousands of Russian tschetwerk (1 tschetwerk equal to 2,099 hectoliters), as follows:

Years.	Wheat.	Rye.	Barley.	Oats.
1851-1855.....	3, 178	1, 018	220	344
1856-1860.....	3, 813	1, 630	739	1, 726
1861-1865.....	5, 013	1, 440	550	836
1866-1870.....	7, 676	2, 200	910	2, 470
1871-1875.....	9, 211	5, 906	1, 528	3, 969
1876-1880.....	10, 580	8, 819	2, 442	6, 771

According to the official data of the last few years the English rise in tschetwerk = 2,099 hectoliters.

Years.	Wheat.	Rye.	Barley.	Oats.
1876.....	9, 240, 000	8, 070, 000	1, 470, 000	5, 230, 000
1877.....	8, 658, 431	9, 997, 397	2, 136, 224	7, 621, 099
1878.....	17, 256, 974	10, 010, 955	4, 556, 390	7, 629, 706
1879.....	12, 443, 752	10, 526, 690	2, 473, 228	6, 780, 629
1880.....	5, 303, 909	5, 490, 720	1, 574, 291	6, 596, 359

The year 1878 denotes the culminating point of Russian export of grain. The total value of the exported cereals, pulses, and flour products reached in these years the height of 1.223,000,000 marks (\$297,500,000). The serious falling off of the Russian export of wheat from 17,000,000 tschetwerk in 1878 down to 5,000,000 in 1880, shows more than anything else how destructive the American wheat production has become in Europe. In Russia this was necessarily felt first, and it became patent even to the uninitiated when American cargoes of wheat made their appearance in 1879, on the shores of the Black Sea. A panic spread through the country and the government, at the instigation of the Odessa exporters, dispatched Mr. Obinski, the director of the Odessa Commercial School, to the United States in order to inquire on the spot into the causes and dangers of this competition. In a report made by the same, the conclusions were reached that *Russia at present is not able to compete with the United States in foreign markets.* For the benefit of the agricultural interests in Russia it was proposed, first, to petition the government for a junction of several suitable railway points calculated to promote the grain trade, and for the construction of several requisite new railway lines; second, to effect the introduction of such conveniences and contrivances (grain elevators, &c.) as have enabled America to enter so successfully the list of competition.

With regard to the first point, which declares the grant of new railway communications and cheap freight rates to be necessary, it is well known that steps have been taken during the last half year on the part of the Russian Government to obtain, in conjunction with the Austrian and German railway boards, cheap differential tariffs, and forwarding Russian grain, particularly rye and oats from Polish Lithuania to Germany. Large grain-trains are to be provided, which are to run in four directions,

viz, via Lemberg, Warsaw, Grajewo, and Mlava from the most fertile districts to Berlin and Central Germany, and which are to make the efforts of the German import duty illusory.

Prince Bismarck, at present minister of commerce, is not likely to assist in thus forwarding Russian agriculture.

The Russian Government also means to connect the rich grain districts of the Poltava departments as closely as possible with the Baltic and the Black Sea by the construction of a railway line via Libau, Romnu, Nikolayev.

The recommendations under the second point are also carried into effect, and notably so at Odessa, the chief grain exporting emporium of Russia. Until now, the vast quantities of wheat that are exported from there, lay stored in gigantic buildings in the center of the town, from whence the cartage to the railway magazines and to the harbor, which lies 140 feet below the level of the town, with the heavy rise in wages and primitive mode of conveyance, often costs more, and always as much as the whole ocean freight to England. As a remedy, thirteen graneries of three to four floors each, with powerful elevators, are about to be erected. The last word, however, upon the subject does not appear to have been spoken, as the town is desirous that the attendant outlay of 7,000,000 rubles should be born by the government. The structures proposed are to be of the style of the elevators at New York, some of which hold 1,500,000 bushels of grain, and have reduced the cost of shifting the grain from the railways on board ship from 4 to 5 cents per bushel to 1½ cents per bushel.

All this goes to prove that Russia has not only recognized the imminent dangers of American competition, but that she is also taking every measure to ward off the consequences from her territory.

As regards the position of Austro-Hungary in grain competition, it is well known that the exports from there chiefly consist of *flour products*, which find their way to every country in Europe. The value of exports of flour rose from 13,800,000 marks (\$3,200,000) in 1873 to 109,600,000 marks (\$26,000,000) in 1878. The principal share falls to the mills in Pesth, which stand unrivaled in their production.

The American mills have not yet succeeded in supplying such beautiful wheat flour, and in addition to this have to struggle with a great difficulty, for they have no purchaser for their bran. There is no need of bran for fattening cattle in the prairies. All attempts to compress bran without heating it have as yet failed. Thus its transport by rail is too dear.

In Minneapolis a cwt. of bran is sold at about 1.20 marks (28 cents); in London at about five times that price. A great problem remains to be solved here.

In spite of this difficulty the price of American wheat flour is so low that the Hungarian flour for the last two years has been pressed more and more out of the wholesale trade in France and England, and is only bought as a specialty on account of its beautiful color. In Minneapolis 5 bushels of grain scarcely cost more than 15 marks (\$3.57). These 5 bushels give 1 barrel of 196 (English) pounds of flour; grinding and packing costs 2 marks (47 cents), freight from Minneapolis to London 5 marks (\$1.19). A barrel of wheat flour, less the value of bran at 1 mark (23.8 cents), can be supplied at a net cost of 21 marks (\$5). This would make about 24 marks (\$5.71) for 100 kilograms of wheat flour, leaving all parties a handsome profit.

It is not to be wondered, therefore, that the price of flour in Pesth, in spite of the bad harvest of 1880, fell from 25 gulden (\$11.32½), at the commencement of the year, to 22½ gulden (\$11.19) at the end of the year, and that quantities ground at the Pesth stream mills fell from 4,305,000 cwt. in the year of 1879 to 3,722,000 cwt. in 1880, thereby putting the grandest industry of Hungary in jeopardy. There can be no doubt as to the issue. The New York exports have risen from 2,630,400 barrels in the year 1878 to 4,677,700 barrels in 1880.

Here Germany may render her friendly neighbor an immeasurable service in the coming conventional tariff by leaving the present rate of duty on grain at its present height, while considerably raising the import rates for Russia and North America. The demand for grain in South Germany may, without any injury to North German agriculture, be safely left to Hungary at a continuance of present duty rates. No transport allowances, however, must be allowed, in order that a slight advantage may be left to the agriculturist this side of the frontier in the home market.

In the event of average harvests the overproduction of Austria and Hungary would probably supply the deficit of grain in Germany for the most part; for the excess of export of Austria-Hungary has amounted, on an average, these last years to 180,000,000 marks (\$42,800,000). The surplus of grain export of Russia, on the other hand, which for the future will have a great influence on Germany, amounts to over fourfold that of Austria, and constitutes a danger that cannot be too closely watched. A close joint action on the part of Germany and Austria is for both countries a matter of self-preservation. Nowhere can Germany better invest her surplus capital or find a better market for her industrial fabrics than in Austria, and the latter can nowhere outside of Germany better apply the products of her soil in payment of interest and settlement of debts. Germany, which has no colonies, cannot find any country better

adapted for her enterprise than the Danube empire and the lower Danubian principalities. By buying grain, cattle, and timber in America, or in Russia, there is little chance for giving German fabrics in exchange, and the money leaves the country forever. If the same articles are bought in Austria, the reciprocity is natural and a matter of course.

However much, therefore, the project of a customs union between Germany and Austria may be opposed, from political considerations or legal-tender currency objections, still the closest commercial relations must be designated as the chief task of German political and national economy. Both countries would thereby become stronger and more prosperous in themselves, and be rendered more independent and powerful in their relations to foreign countries. In Austria it is very well known that the grain supply to South Germany and Switzerland is the only salvation from American competition, and from day to day new projects turn up for facilitating this export. *Low railway tariff rates* are here, as everywhere else, the watchword.

The Austrian State Railway is very favorably disposed towards these desires of the agriculturist. A low rate of freight for grain from Hungary to the Rhenish provinces and Westphalia has already been decided on. Only a few days ago the boards of the several railways which participate in the direct traffic of Austria-Hungary with Rhenish provinces and Belgium held a conference in Vienna, in which the Austrian railways pointed out that they would approve of the formerly existing cheap discriminating freight rates for iron and iron goods from Westphalia to Austria, if the royal board of Cologne Minden Railway would undertake to have the grain freights for the Hungarian export likewise reduced to the *status quo ante* 1880. The apprehensions of the Hungarian Government are just at present increased by the competition of Roumania and Wallachia constantly being pushed more vigorously toward Germany; countries which hitherto have had their principal market in England. The railway transport, via Hungary to Switzerland and South Germany, is so high in consequence of the existing rates of freight that the bulk of the shipments, in preference, take the long water route via Galatz, through the Mediterranean to Marseilles, and from thence by railway to Switzerland or via Galatz and Braila by sea to Antwerp, and from there by rail to the Rhine; or via Rotterdam in connection with the Rhine steam navigation as far as Switzerland. This route is dearer than from Chicago to the Rhine. The Austrian railways and the Danube steamers alone can afford a remedy to this.

Still, the principal enemies of German agriculture are North America and Russia. As to all other countries the maintenance of the present rate of duty, that cannot be called a protective duty, but rather a declaration charge, will suffice for enabling German agriculture to hold its own. In the case of Russia and North America the duties must be materially increased. Rye, the price of which for more than half a century on an average has been only three-fourths of that of wheat, nowadays costs the same as wheat, and yet a price of 10 marks (\$2.38) per cwt. for American wheat, when the farmers of that country can supply it with profit at 7 marks (\$1.66) per cwt., is inordinately high.

Nor will it do as a remedy against the evil and as a means of protection to direct the large landed proprietors to resort to the higher agricultural products, to the production of fine butter and cheese, the breeding of blooded stock, and the fattening of cattle, and the small farmers to substitute the cultivation of vegetables and plants, the culture of fruit, and the raising of poultry, for the Americans are fast beginning to predominate in the most valuable products of agriculture also, such as meat of all kinds, fruit, and flour; the best meat can be supplied at New York at 34 pfenniges (8 cents) and 40 pfenniges (9½ cents) at London, and the prices Americans already get in European markets for beef tongues, hams, bacon, lard, butter, and apples are the highest.

The fact is that by the boundless extension of wheat cultivation in America a heavy burden will permanently rest on German agriculture, a burden favoring the consumer to the detriment of the producer; and that likewise the cattle herds of North America with their products will gradually conquer the markets of Western Europe and render its cattle-breeding unprofitable. Indeed there is no doubt that the duties of self-preservation make it incumbent on Germany to defend herself economically as she did politically.

German agriculture is about engaging in a like struggle of competition as that in which English agriculture has already succumbed. It is essential to meet the enemy with tried weapons.

As to what these weapons should consist in, the enemy has left no doubt; he knows from experience the shafts that inflict mortal wounds. The Americans tolerate no foreign competition in their home market. As specimens of their means of defense and protection, some of the import duties may be pointed to as follows: On flat dressed, 18 marks (\$4.28) per 100 kilograms; on wheat, 3 marks (71 cents) per hundred kilograms are imposed; on wheat flour, 20 per cent. ad valorem; on oils, 20 to 50 per cent. ad valorem. Wool, according to quality, pays a duty from 9 cents per pound and 9 per cent. ad valorem to 45 cents per pound and 31.5 per cent. ad valorem. On wool, with the

exception of silk, the highest rates of duty are imposed, and so in addition to the 794 cloth manufactories in the Eastern States, 688 new ones have been erected in the West. Let these tried maxims of the American autagonist be boldly adopted on the part of Germany with the single exception of Indian corn, on which a comparatively low rate of duty might be accepted. The cry throughout the country should be loudly raised, of "out with enemies of German agriculture," so that all may know what is necessary. When this fundamental condition is fulfilled and a peaceful development of the national labor rendered possible, it will be time enough to learn from the Americans how agriculture on a large scale is to be developed. Then the necessity of improvements in trade, milling and traffic will become most patent, for in the improvement of the means of transport in railways, canals, and lines of steamers lies the secret of American supremacy.

The question of transport is vital for all productions, and for a prosperous development of German agriculture, nothing can be of greater importance than cheap and easy communication between the grain producing and consuming districts, between the agricultural districts of the East and the industrial districts of the West and South. Only by this means will the nation get its sacred rights back; that is, its right to its home market.

## TRADE BETWEEN FINLAND AND THE UNITED STATES.

*REPORT BY VICE-CONSUL DONNER OF HELSINGFORS.*

I have to report an improvement in the commercial relationship between this country and the United States, by the fact that several cargoes of Indian corn have been imported direct from the United States. The day before yesterday an English steamer, Camden, arrived from New York direct to this port with about 70,000 bushels. As soon as the corn is more generally known there will be a larger import, on account of the cheapness of the article.

Regarding the emigration from this country to the United States, I have to report that about 1,500 people emigrated last year from the northern provinces of the country. Many of the people go to the United States with the purpose of remaining a few years, and afterwards returning with their earnings to their families. I should, however, say that the majority remains in the United States and after some time write to their relations and friends to join them.

Many of the people going out are landed proprietors and to some extent well off. The Finland law allows every one to emigrate or leave the country whenever he pleases.

The emigration of this year will much depend upon the harvest. If there is a poor harvest, the emigration is always larger. During the first half of this year there have emigrated to America from the county of Wasa 658 men, 75 women, and 14 children under twelve years of age.

HERMAN DONNER,  
*Vice-Consul.*

UNITED STATES CONSULATE,  
*Helsingfors, August 3, 1881.*

## EXPORTS FROM AUSTRIA-HUNGARY TO THE UNITED STATES.

*REPORT BY CONSUL-GENERAL WEAVER, OF VIENNA.*

I have the honor to inclose herewith copies of the digest of invoice books of the several consular districts of the Austro-Hungarian Empire for the quarter ending June 30, 1881.

The total value of invoices authenticated during the quarter is \$1,413,087.28, giving a decrease of \$397,419.54, or nearly 22 per cent. when compared with same quarter of 1880.

The principal articles were, glassware, 24½ per cent.; buttons, 13 per

cent.; textiles, 12½ per cent.; fruits, 6 per cent.; hides and skins, raw and prepared, 6 per cent.; pipes and fixtures, 4 per cent.; drugs and gum, each, 3½ per cent.; fancy articles and pottery, each, 3 per cent.; aggregating 79 per cent. of the whole.

The principal increase appears in Bohemia, where, out of \$103,000 increase, are seen the following, viz: pottery, \$30,000; glass, \$28,000; hides and skins, \$23,000; and textiles, \$14,000.

During the last three quarters of the year the decrease has been constant, as may be seen from the following table showing the totals by quarters compared with like period of former years:

Periods.	Totals for quarter.	Compared with like period of former year.
Third quarter, 1880 .....	\$1, 575, 633 88	+ \$439, 002 02
Fourth quarter, 1880 .....	1, 525, 852 59	— 197, 686 41
First quarter, 1881 .....	1, 528, 733 93	— 668, 102 91
Second quarter, 1881 .....	1, 413, 087 28	— 397, 419 54
Totals .....	6, 043, 307 68	— 824, 186 84

From the foregoing table it will be noted that for the last three quarters the decrease is very marked, and during the entire year the decrease amounts to 12 per cent.

JAMES RILEY WEAVER,  
Consul-General.

UNITED STATES CONSULATE,  
Vienna, July 14, 1881.

Statement showing the value of declared exports from the consular districts of Austria-Hungary (agencies included) to the United States of America during the quarter ending June 30, 1881.

Articles.	Budapesth.	Prague.	Trieste.	Vienna.	Total.
Bed feathers .....		\$2, 343 82			\$2, 343 82
Books .....		1, 592 94			1, 592 94
Buttons .....		15, 143 71		\$174, 002 74	189, 146 45
Cloth and woolen goods .....		30, 314 89		48, 327 08	78, 641 97
Dress goods and shawls .....				8, 767 68	8, 767 68
Drugs and chemicals .....	\$1, 701 31	2, 229 12	\$6, 361 35	41, 241 65	51, 533 43
Fancy goods and jewelry .....		2, 173 52		44, 594 11	46, 767 63
Fruits, dried .....	9, 975 71	5, 469 70	70, 254 09		85, 699 50
Furniture .....		1, 942 42		11, 570 76	13, 513 18
Glassware .....		344, 221 14		2, 705 96	346, 927 10
Gloves .....		1, 243 76		8, 711 38	9, 955 14
Gum .....			48, 349 51		48, 349 51
Hair, human .....		6, 213 69			6, 213 69
Insect powder .....			28, 098 04		28, 098 04
Iron and steel .....				24, 654 18	24, 654 18
Leather, skins, and furs .....		24, 844 35	4, 799 98	55, 104 07	84, 748 40
Linen and cotton goods .....		217 92		71, 441 66	71, 659 58
Mineral water .....	15, 501 34	3, 975 76			19, 477 10
Musical instruments .....		2, 137 46		27, 864 12	30, 001 58
Oils .....			12, 845 97		12, 845 97
Pipes and pipe fixtures .....				57, 810 53	57, 810 53
Porcelain and pottery .....		44, 943 02		1, 238 45	46, 181 47
Seeds .....			5, 444 47		5, 444 47
Silks and velvets .....				22, 642 84	22, 642 84
Sponges .....			15, 716 53		15, 716 53
Toys .....		7, 641 42			7, 641 42
Wine, beer, and liquor .....	2, 305 90	12, 931 03		3, 441 06	18, 677 99
Wool .....			15, 761 67		15, 761 67
Miscellaneous .....		3, 166 38	61, 624 78	2, 482 31	67, 273 47
Total in U. S. gold .....	29, 484 26	512, 746 05	269, 256 39	601, 600 58	1, 413, 087 28
Total for same quarter 1880 .....	51, 048 01	409, 848 50	563, 109 03	786, 501 28	1, 810, 506 82
Increase .....		102, 897 55			
Decrease .....	21, 563 75		293, 852 64	184, 900 70	397, 419 54

The average value of the Austrian paper florin during the quarter was equal to 41.45 cents.

## EXPORTS FROM GERMANY TO THE UNITED STATES.

REPORT BY CONSUL-GENERAL LEE, OF FRANKFORT-ON-THE-MAIN.

I submit herewith for the information of the Department a statement showing the exports to the United States from the various consular territories within this consulate-general during the quarter ending June 30, 1881.

A large falling off from the amount of the exports during the corresponding quarter of 1880 will be observed, which falling off was mainly due to the decrease which took place in the export of iron.

ALFRED E. LEE,  
Consul-General.

UNITED STATES CONSULATE-GENERAL,  
Frankfort-on-the-Main, July 23, 1881.

*Exports to the United States from the district of the United States Consulate-General at Frankfort-on-the-Main, and the consulates subordinate thereto, during the quarter ending June 30, 1881.*

Articles.	Aix-la-Chapelle.	Cologne.	Frankfort.	Mannheim.	Mayence.
Baskets and basket ware.....					
Brushes and hair pencils.....					
Bronze powder and leaf metal.....					
Beads and bead ware.....					
Books, stationery, photographs, &c.....	\$11,465 54	\$720	\$15,037 68	\$3,584 00	
Clay (for pipes).....			10,642 68		
China, glass, porcelain, and earthen ware.	43,852 95	2,549 05	13,336 50	123 00	\$522 41
Cotton dress goods, velvets, and furnishings.....				27,367 00	
Corsets.....					
Cloth.....	298,754 25		7,022 29	1,754 00	
Cologne water.....		3,621 09			
Decalcomania.....					
Dyes, drugs, chemicals, &c.....	498 76	3,055 28	59,033 37	283,497 00	45,120 42
Empty petroleum barrels.....				6,272 00	
Fancy goods and toys.....			76,403 67	9,930 00	
Fancy paper.....				6,883 00	
Glass-plate, window and mirror glass....				10,143 00	
Glassware (hollow), watch crystals, spectacle glasses, &c.....			3,513 27	12,000 00	
Gold, silver, and metal paper.....					
Gas-burners, lava gas-tips, brass lamps..					
Grape sugar and sirup.....		25,346 33			
Hatters' fur.....			54,010 29		
Hair, prepared and raw.....			12,204 85		
Hares' hair.....			24,775 08		
Instruments, mathematical and physical..					
Jewelry and precious stones.....				194 00	100,994 56
Kid gloves.....	22,131 25				
Lead pencils and lead for pencils.....					
Leather, hides, and skins.....	344 31	63,405 31	104,194 95	256,206 00	67,015 61
Leather goods.....			9,345 91		
Lead and zinc.....	49,050 00		3,601 62		
Leonic ware.....					
Linen, woolen, and cotton goods.....	5,851 48		49,807 72		
Lithographic stones and materials.....					
Machinery.....	72 04		2,792 79	1,273 00	337 37
Mineral water.....		105,933 50	26,122 73		14,654 30
Music, musical strings and instruments..			6,235 80	108 00	1,721 04
Optical goods.....			278 64		
Oil paintings.....					2,168 89
Platina wire and plates.....			6,503 11		
Prunes, dried fruits, nuts, land produce, &c.....			2,496 27	1,342 00	3,246 03
Pins and needles.....	13,625 27				

Exports to the United States from the district of the United States Consulate-General at  
 Frankfurt, Port-on-the-Main, &c.—Continued.

Articles.	ix-la-Chapelle.	Cologne.	Frankfort.	Mannheim.	Mayence.
Railway rails, old and new, iron ware, scrap iron, &c.....		\$326,609 57	\$65,065 71		
Sardines and herrings.....			46,380 15		
Seeds, plants, &c.....			7,841 48		\$10 58
Slates and slate pencils.....					
Silk, silk goods, velvets, ribbons, and braids, &c.....		123,721 75		\$38,926 00	
Smokers' articles, snuff, cigars, and tobacco.....			4,551 16 186 02	4,836 00	9,541 83
Soaps and perfumery.....					
Statuary.....			4,997 79	13,340 00	12 85
Sundries.....		11,347 17	10		
Steel (manufactured).....		106,796 27	1,040 81	2,848 00	
Tapestry and embroidery ware, laces.....			21,826 00	72,652 00	113,871 64
Wine, brandy, beer, and liquor.....	\$765 00	25,303 30			
Watches, clocks, and watchmen's detectors.....				464 00	372 17
Total.....	446,350 85	825,912 62	639,489 47	756,712 00	359,589 70
Total for same quarter in 1880.....	407,666 13	813,024 00	1,683,862 52	556,840 00	341,291 55
Increase.....	38,684 72	12,888 62		199,872 00	18,298 15
Decrease.....			1,044,373 05		

Articles.	Munich.	Nuremberg.	Sonneberg.	Stuttgart.	Total.
Baskets and basket ware.....		\$46,522 60	\$990 25		\$47,512 94
Brushes and hair pencils.....		5,253 27			5,253 27
Bronze powder and leaf metal.....	\$1,080 12	94,415 48			95,495 60
Beads and bead ware.....		1,241 77			1,241 77
Books, stationery, photographs, &c.....	8,993 56			\$1,572 38	41,373 16
Clay (for pipes).....		7,837 46			18,480 14
China, glass, porcelain, and earthen ware.....	931 07	7,209 07	142,989 39	2,500 71	214,014 15
Cotton dress goods, velvets, and furnishings.....					27,367 00
Corsets.....				78,864 76	78,864 76
Cloth.....					307,530 54
Cologne water.....					3,621 09
Decalcomania.....		18,682 39			18,682 39
Dyes, drugs, chemicals, &c.....	1,617 15	10,267 74	10,759 77	56,541 39	497,883 88
Empty petroleum barrels.....					6,272 00
Fancy goods and toys.....	431 97	99,036 74	224,984 75	350 45	411,137 58
Fancy paper.....		11,612 14			18,475 14
Glass-plate, window and mirror glass.....		215,399 94			225,542 94
Glassware (hollow), watch crystals, spectacle glasses, &c.....					15,513 27
Gold, silver, and metal paper.....	12,009 19				12,009 19
Gas-burners, lava gas-tips, brass lamps.....		1,660 00	1,878 28		3,538 28
Grape sugar and sirup.....					25,346 33
Hatters' fur.....					54,010 29
Hair, prepared and raw.....					12,204 85
Hares hair.....					24,775 08
Instruments, mathematical and physical.....	1,033 83	3,667 23			4,701 06
Jewelry and precious stones.....				2,374 03	103,562 59
Kid gloves.....	17,431 01				39,562 26
Lead pencils and lead for pencils.....		32,974 91			32,974 91
Leather, hides, and skins.....	24,396 00			5,235 51	520,797 69
Leather goods.....					9,845 91
Lead and zinc.....					52,651 62
Leonic ware.....		5,552 45			5,552 45
Linen, woolen, and cotton goods.....		34,457 00	92,564 75	1,215 85	183,956 80
Lithographic stones and materials.....		15,347 69		2,905 38	18,253 07
Machinery.....				95 23	4,570 43
Mineral water.....			2,685 24		149,895 77
Music, musical strings and instruments.....	2,113 20	7,096 69	15,738 38	2,099 13	35,112 29
Optical goods.....	1,109 20	7,746 50			9,134 34
Oil paintings.....	14,478 19				16,647 08
Platina wire and plates.....					6,503 11
Prunes, dried fruits, nuts, land produce, &c.....		2,393 40		11,642 93	21,120 63
Pins and needles.....					13,625 27
Railway rails, old and new, iron ware, scrap iron, &c.....			5,356 85	641 55	397,673 68
Sardines and herrings.....					46,380 15
Seeds, plants, &c.....			2,871 65	522 00	10,745 71
Slates and slate pencils.....		5,794 39	9,017 53		15,711 92

*Exports to the United States from the district of the United States Consulate-General at Frankfort-on-the-Main, &c.—Continued.*

Articles.	Munich.	Nuremberg.	Sonneberg.	Stuttgart.	Total.
Silk, silk goods, velvets, ribbons, and braids, &c.....					\$162,648 75
Smokers' articles, snuff, cigars, and tobacco.....			\$7,071 92	\$942 41	26,943 32
Soaps and perfumery.....					186 02
Statuary.....	\$2 112 49				2,112 49
Sundries.....	4,943 71	\$13,021 96	2,196 07	6,367 11	56,226 68
Steel (manufactured).....	1,068 95				108,436 32
Tapestry and embroidery ware, laces.....		14,589 03		1,179 57	19,657 41
Wine, brandy, beer, and liquor.....		10,749 36		1,836 00	247,053 33
Watches, clocks, and watchmen's detectors.....				1,453 92	2,290 09
Total.....	93,749 64	672,529 30	520,004 83	178,340 36	4,489,678 77
Total for same quarter in 1880.....	145,572 30	696,459 46	496,171 59	184,820 13	5,322,707 68
Increase.....			23,833 24		
Decrease.....	51,822 66	23,930 16		6,479 77	833,028 91

## AMERICAN TRADE WITH NEW SOUTH WALES.

*REPORT OF CONSUL WILLIAMS, OF SYDNEY, NEW SOUTH WALES.*

### CONDITION OF SYDNEY.

Although the statistical returns of this colony for 1880 have not been issued, and probably will not be for several months, I am able from other sources to furnish some particulars respecting the condition and trade of the colony for that year.

The revenue was £4,981,991, an increase of £430,325 over the previous year, which left the treasurer with a credit balance instead of a deficit, as was anticipated. The amount of imports seaward was £11,081,474, being less by £515,153 than for 1879. The exports amounted to £9,873,741, an excess over the previous year of £2,186,927.

Railways have been extended into the agricultural and pastoral interior 220 miles, and there are 426 miles under construction, and 252 additional miles authorized.

I am unable to give the amount of imports from the United States, as they are only to be obtained from government returns, but I presume they will compare favorably with those of 1879. The exports, as recorded in this office, amounted to \$1,280,000, of which \$763,000 consisted of tin, and \$288,000 of wool. A large proportion of trade between this colony and England is now carried by large steamers without subsidy. Probably half the quantity of tin intended for the United States and a considerable portion of the imports, of which there is no record, have been transmitted by them.

The number and tonnage of American ships which arrived here in 1880 was 22, of 30,500 tons, against 41 in 1879 of 44,988 tons. I do not give the arrivals at Newcastle and Brisbane, as almost without an exception they had been previously entered at Adelaide, Melbourne, and Sydney. The diminished number of American, and also of English, sailing ships has caused a large increase in the rates of freight, which are now 20s. to San Francisco, against 7s. per ton some four months since, and a proportional rise to all other ports. Several American ships have been chartered for London, at rates equal to £4 per registered ton, and more could have obtained equally good rates had they been here in the "wool season."

Another cause for the advance in freight is the lower price of coal, which is now 7s., or \$1.70, per ton, against 14s., or \$3.40, a few months since, at Newcastle. As the present price probably leaves a loss to the owners of mines, it is not likely to continue long, but neither is it likely to again advance to 14s., except under unusual circumstances.

The population of the colony was estimated at some 760,000 on the 31st of December last, but it is confidently believed that the census taken on the 3d instant will show that it exceeds 800,000, which would give an increase of between 60 and 70 per cent. for the last decade. In this connection I may remark that within the last week the population has been increased by the arrival of some 200 Italians, in the most destitute and forlorn condition, from the Marquis de Ray's proposed colony at New Inland, and who are now being provided for by the government until they can obtain employment. Some 50 of their original number died in consequence of the privations and hardships to which they were subjected.

It will probably be remembered that the first emigrants to New Inland were carried there in the ship *Chandinagon*, under the protection of the United States flag. I cannot but think that the right to use our flag by naturalized citizens who buy vessels in foreign countries, or have them transferred to them, may lead to very serious abuses, as it unquestionably has done in this case under consideration. My own opinion from the first has been that the transfer to Dr. Fabur was collusive.

A much easier money market than for the previous few years has undoubtedly contributed to the improvement of the revenue and trade of the colony, and has stimulated trade in all directions. Large sums of money have lately been received from England for investment, which has thus far been chiefly employed in taking over from the local banks securities upon pastoral properties and lands at reduced rates of interest, which will leave the bank capital of the colony more open for the promotion of legitimate commercial operations. One of the Sydney banks has recently taken a £500,000 4 per cent. loan of the Victoria Government at 2 per cent. premium. It is expected that this government will float a similar loan here instead of going to the London market.

Branches of a French banking institution have been recently opened in Melbourne and Sydney, the tendency of which, and probably the chief object, must be to promote French trade with Australasia. As I have before reported, France, Austria, Italy, Germany, Japan, and British India are actively engaged in endeavoring to extend their trade with Australia, and if Americans are to hold even their present relative position it will require active efforts on the part of our merchants and manufacturers.

I cannot suggest any special lines in which the trade could be enlarged, but there is nothing used by an English community which would not be open to Americans upon the most favorable terms, if of equal quality and at cheaper rates than can be obtained elsewhere. This government is now importing some twenty or more American steam motors for tramways, and I understand that somewhat extensive sales of American watches, weighing machines, and various other articles have been made through the exhibition in this city and in Melbourne which will probably lead to an extended business.

There are some rather large establishments here for the importation and sale of American machinery and implements which I am told are doing a good business, and will probably continue to do so unless superseded by local production or foreign competition. To show the nature of the competition which has to be met, I was to-day shown a German

pattern cord by an American importer, who says that they are fac-similies of American patent, and can be sold much less than the American-made article.

There has been no change in the tariff except the increase of duty on spirits and wine, which I have previously reported.

I make this communication in accordance with instructions contained in circular of July 1, 1880, requiring more frequent reports from consular officers, and although there is nothing in it having a direct bearing upon American trade, yet the general prosperity of the country, the easy money market, the reduction in the price of coal, the increase in the rates of freight, and, above all, the comparative rapid extension of railways with the interior, where our light and handy machines and implements will meet with an increasing demand, may, I trust, make it interesting.

J. H. WILLIAMS, *Consul.*

UNITED STATES CONSULATE,  
*Sydney, April 13, 1881.*

## EXPORTS OF PETROLEUM FROM THE UNITED STATES, AND ITS CONSUMPTION IN HOLLAND.

*REPORT BY CONSUL WINTER, OF ROTTERDAM.*

The following statistics, showing the amount of petroleum exported from the United States to the five principal northern ports of Europe, viz, Amsterdam, Antwerp, Bremen, Hamburg, and Rotterdam, for the years 1879 and 1880, will be of interest to our exporters:

### *Export from the United States.*

Ports.	1879.	1880.
	<i>Barrels.</i>	<i>Barrels.</i>
Amsterdam .....	189,400	193,188
Antwerp .....	681,621	619,247
Bremen .....	1,455,764	1,191,911
Hamburg .....	377,632	454,947
Rotterdam .....	251,119	142,425
Total .....	2,955,536	2,601,718

Thus showing for 1880 an increase for Amsterdam of 3,788 barrels and for Hamburg of 77,315 barrels, and a decrease for Antwerp of 62,374 barrels, for Bremen of 263,853 barrels, and for Rotterdam of 108,694 barrels. Total decrease, 353,818 barrels.

The actual amount of petroleum received in the five principal northern ports of Europe for the year 1880 is as follows:

Amsterdam (against 150,023 barrels in 1879) .....	217,046
Antwerp .....	654,461
Bremen .....	1,295,606
Hamburg .....	513,668
Rotterdam (against 201,559 barrels in 1879) .....	212,433
Total .....	2,893,214

The reason of the difference between the exports from the United States to Rotterdam and the amount imported is explained by the fact

that the export from the United States to Rotterdam was very important in October and November, 1879, which shipments did not arrive at Rotterdam before January, 1880, on account of the very severe early winter.

I also give the following official statistics showing the amount of petroleum consumed in the Netherlands for the last six years, which statistics show a gradual increase in the consumption of this article in this country. There is every reason to believe that the Netherlands will continue in the future as in the past to be a very profitable field for our exporters of petroleum.

*Consumption of petroleum in the Netherlands.*

Years.	Kilograms.	Barrels.
1875.....	33, 592, 000	258, 000
1876.....	34, 074, 000	262, 000
1877.....	40, 807, 000	302, 000
1878.....	42, 481, 000	313, 000
1879.....	44, 391, 000	322, 000
1880.....	50, 750, 000	362, 500

During the first quarter of 1881 the consumption was 10,977,000 kilograms, against 10,756,000 kilograms for the same period in 1880.

Prices of petroleum at Rotterdam opened in 1880 at 9.75 florins per 100 kilograms, went down in January to 8.50 florins, and ruled from 8.75 to 9 florins until the end of May. In the first half of June prices went up to 10 florins, and in July to 11.50 florins, maintained this price until the first half of September, ruled at 14 florins in the middle of October, and then declined to 12 florins, the year 1880 closing at 12.25 florins per 100 kilograms.

Since the beginning of the year 1881 prices of petroleum have been regularly declining. They opened the 1st of January at 12.25 florins, declined in January to 11.25 florins, in March to 10.25 florins, in April to 10 florins, and in May to 9.25 florins. In June there was an upward reaction, owing to reduced stocks, and prices ruled that month from 9.50 to 9.75 florins, but the arrivals of some cargoes brought prices down in July to 9.37 and 9.25 florins per 100 kilograms. (The florin is equal to about 40 cents, and 100 kilograms to about 220 pounds.)

JNO. F. WINTER,  
*Consul.*

UNITED STATES CONSULATE,  
*Rotterdam, July 15, 1881.*

**AMERICAN AND IRISH VS. ENGLISH SHIP-BUILDING.**

*REPORT BY CONSUL BROOKS, OF CORK, IRELAND.*

In connection with current discussions in the United States regarding ship-building and shipping interests generally, I have the honor to submit the following facts:

The Royal Victoria docks are the largest and best equipped establishment of the kind in the south of Ireland, if not in the entire island. They are conveniently located at Passage West, on the river Lee, half-way between the city of Cork proper and the harbor of Queenstown,

and are accessible at all times to the deepest draught vessels employed in the North-Atlantic trade. Several years ago, before the transatlantic traffic from New York, Boston, and Philadelphia was so overwhelmingly absorbed by the steamship lines, these docks were continuously and profitably engaged in repairing sailing vessels.

Lately, however, this business has fallen off, as it will continue to do as the steam revolution now being developed in the ocean carrying trade progresses. But there are now employed in the docks several hundred men in various capacities. The wages paid to these men are as follows: Carpenters and shipwrights, \$1.56 per day; smiths and engineers, from \$1.32 to \$1.44 per day; joiners and riggers, \$1.20 per day; laborers, from 66 to 84 cents per day. The latter class are sometimes paid at a higher rate, never exceeding \$1 per day, when especially employed, as, for instance, in the loading and unloading of vessels, which labor is generally done by contract, at so much per ton, as may be agreed. "The day" is from daylight until dark in the winter; and from 6 a. m. to 6 p. m. in the summer; one hour and a half being allowed for meals.

From this it appears that the employes in question work from ten to twelve hours a day the year around, and that the best paid of them receive only \$1.56 as a day's wages.

The timber and lumber used in repairing vessels is largely imported from America; the iron and other metal from England.

It is admitted, however, that these docks, notwithstanding the advantage of cheap labor and reasonable prices for all kinds of material consumed, are not a profit-paying investment. In fact a few months ago they were "sold out" under an equity process at a loss of nearly \$200,000, to some of the original shareholders. The recent loss is but the natural sequence of other losses of equally large sums which have preceded it during the past ten or fifteen years, and is explained by the fact that, during the period mentioned, the domination in the oceans of the world of steam over sail has been most effectively asserted. In other words, the number of sailing vessels from all parts engaged in North Atlantic commerce has largely fallen off during the past ten years.

I submit that this showing demonstrates two important results, viz:

First. That despite cheap labor and other advantages, it is impossible that Irish or other ship-yards devoted to repairing or building either iron or wooden ships can compete with English yards of the same kind.

Secondly. That steam has, as every one knows who has studied the subject, practically superseded sail in the ocean carrying trade.

The only exception to this last (second) deduction is to be found in our Pacific coast traffic, the grain carrying trade with European ports.

For long voyages from Portland, Oreg., or from San Francisco, Cal., to Liverpool, Hull, Havre, &c., or even to Odessa, sailing vessels, for obvious reasons, may be most profitably employed in the transportation of grain. But it should be remembered that this profit is almost invariably reduced by the fact that the average sailing vessel, after having discharged a cargo on this side of the world, is compelled to return home empty, "in ballast," or with non-paying freights.

Very little consolation to American ship-builders can be derived from these statements, especially when they show so plainly as they do that English rivalry has driven the Irish as well as other industries in this line out of the scope of competition; but it is perhaps the part of wisdom to pay heed to the admonition of misfortune, and it will possibly strike the intelligent inquirer into this subject that the lesson it teaches to the United States is an earnest necessity for a radical change in existing laws and methods relating to our shipping interests.

Such a change can, of course, only be accomplished when its importance has been duly impressed upon the people of the United States and their legislative representatives. To those who have no personal knowledge, gained by immediate observation, of the immensity of our export trade, it will be difficult to convey this impression; but it is a significant fact that these same people and their representatives have in time past yielded cheerful and generous aid to great trans-continental railway projects, canals, and other kindred internal improvements. It is therefore not improbable that in due course Congress and the people may become sufficiently well informed regarding the necessities and advantages of this subject to assure the requisite reformatory legislation in behalf of what may be pertinently described as external improvements. Once let it be thoroughly understood and appreciated that this needed reform will retain in the pockets of our own people the thousands upon thousands of dollars now paid to foreigners for the transportation of American products abroad, and there will be very little opposition to this movement. That is to say, prove the reform to be a good investment to the community at large, and the community will invest in it as they did in the railways and canals.

In my humble opinion, the adoption of a policy outlined in the following suggestions might possibly aid in the advancement of this reform:

First. Let Congress as soon as possible, and as far as practicable, remove from American-built ships all kinds of taxes now imposed upon them, including national, State, and municipal, as well as tonnage, harbor, and light-house dues and consular fees.

Second. Let Congress grant such bounties or premiums, or even direct subsidies, to American ship-owners as will enable them to compete with the subsidized steamship lines of other countries.

Third. Abrogate as soon as possible, all government contracts with foreign-built vessels for carrying the mails or any other purpose, and then pay reasonable prices for the same services to American-built ships.

Fourth. Stimulate, also, by bounties and premiums, the ship-building interests of the country, until it is competent to attempt, as it did years ago, a successful rivalry with the ship-builders of the Clyde and Mersey.

These suggestions or recommendations refer only to the encouragement of steamship-building, and are based upon what must be accepted as a foregone conclusion, that the day of sailing vessels, except for very long voyages wherein the consumption of coal in producing steam would be very great, has passed. And I submit that with cheaper transportation for the grain products of the Pacific coast than is now afforded by the existing trans-continental railway freight rates, even this slight advantage may be taken from the sailing craft.

In short, low insurance rates and quick transit now seem to be the only and most satisfactory requirements in our ocean commerce, and they can only be furnished by steamships.

I regret that these facts cannot be so emphasized as to insure the attention I think they deserve at the hands of those whose duty it is to act upon them. The truth is, however, that they are better known and more fully appreciated every and any where else than they are at home in America, where their unfortunate bearing is most significantly felt.

It is no exaggeration to declare that America, meaning the United States, is to-day the admiration and wonder of the civilized world. Intelligent people on this side of the Atlantic, of all nationalities, are simply amazed at the comprehensive variety of our products, and the inexhaustible supplies which are incessantly pouring from the granaries of the great West into the markets of the entire globe.

Go where you will, you will find some convincing evidence of the boundless resources of American industry and invention, or of the prolific yield of American agriculture. But also, and alas! go where you will, you will rarely, too rarely, find in any port the American flag carried by American ships bearing American goods. And this sad fact is as much a matter of amazement to the average foreigner as anything else. But it is a fact, from which some of them especially interested in ship-building hope sooner or later to reap advantage. Knowing that they can build ships with cheap, if not pauperized labor, for less money than they can be built in America, they hope that the United States may be induced to tear down the barrier against free ships, a barrier which now serves as the sole protection to a great but languishing industry. This accomplished, they would at once supply our commerce with vessels of any and every description, good, bad, and indifferent, and at the same time most effectually deplete the country by the effectual destruction of its most important resources in the event of war with any maritime power.

Familiar as these arguments are to Americans who have mastered this question, and forcibly and eloquently as they have been put at home, they are as clearly and thoroughly understood by the ship-builders of Great Britain and Ireland, and it is a safe thing to assume that the real enemies of America on this side of the world, those who made fortunes in "free ships" built for the so-called Confederacy and for blockade-running during the late civil war, are the most earnest advocates outside of the United States of the same policy now.

E. P. BROOKS,  
*Consul.*

UNITED STATES CONSULATE,  
*Cork, Ireland, April 16, 1880.*

## THE CARRYING TRADE BETWEEN LEGHORN AND THE UNITED STATES.

REPORT BY CONSUL RICE.

I much regret that I am again unable to announce any amelioration in the connection of our own merchant navy with the commerce of Leghorn. Similarly to the epoch comprised in the first quarter of the current year, the flag of the United States mercantile marine has been conspicuous by its absence from this consular district during the second quarter just ended, and, strangely enough, this complete eclipse has coincided with the establishment of new lines hence to New York, New Orleans, and the Isthmus of Panama, by the French Transatlantic Company.

During the quarter ending this day, five foreign steamers and three foreign vessels have arrived at this port from ports in the United States, and twenty-seven foreign steamers and eight foreign sailing vessels have cleared hence for home ports.

The aggregate of exports during this quarter amount to \$287,077.08, being an increase of \$42,785.13 over last quarter, to which former amount should be added nearly as much more for exportations from the consular districts of Florence, Carrara, and Rome.

Business has revived during the past three months—this is an encouraging sign, which cannot be passed over without a feeling of grat-

ification—it is evidently to be a good year; the public mind seems to have been quieted by the established facts of the financial policy and intentions of the Italian Government; merchants feel safer and more sure of the future, are commencing to fill out their orders, and altogether there seems a more healthy tone noticeable in the transaction of business than when I last wrote.

The bulk of the carrying trade hence to New York and Boston is in the hands of the Anchor Line Company, which service has dispatched during the past three months six steamers to New York and five to Boston, taking respectively hence a total of 3,150 and 1,100 tons—the 3,150 tons of cargo during the three months to New York consisted mostly of general goods, that for Boston being, on the contrary, mostly block marble.

The Florio steamers run about once every three weeks from Palermo to New York; shippers sending their goods by local coasting steamers to Palermo for transshipment.

The recently established lines of the Transatlantic Company run coasting steamers from Marseilles down the Italian coast to Malta and Tunis and back again, feeding the ocean lines from Marseilles which are announced as fortnightly to New York, monthly to New Orleans, and monthly to Colon. Neither of these latter lines have as yet met with much success as regards carrying through goods for America, as, notwithstanding special facilities offered in cheap rates &c., shippers appear to dread the transshipment alike at Marseilles and Palermo.

Goods for the United States and Canada now frequently take the somewhat roundabout route of London; they are dispatched hence by the weekly direct London steamers, transshipment being effected in London by the steamers of the Anchor Line thence to America and Temperley's Line to Canada. This line successfully opposes, as regards condition, cost, and frequently also time employed, the overland route via Havre. Straw plait and hats and similar light goods are principally forwarded by this route.

Besides these regular communications with the United States by steamers (which in the case of the Anchor Line are of 2,500 tons burden and upwards, such as the "India," "Italia," "Castalia," and "Trinacria"), considerable numbers of sailing vessels sail hence for the United States ports, and large numbers of steamers and sailing crafts load complete cargoes of iron ore in Elba for American ports.

WILLIAM T. RICE,  
Consul.

UNITED STATES CONSULATE,  
*Leghorn, June 30, 1881.*

## THE CARRYING TRADE OF CHINA.

REPORT BY CONSUL-GENERAL WALKER, OF PARIS, FRANCE.

I beg to inclose herewith a translation of an article which appeared in the *Journal des Debats* of the 2d instant, touching the commerce of China and the nationality of the vessels engaged therein.

The text of said treaty is not within my reach, but in the absence of fuller particulars I deem it not unimportant that the people of the United States should be informed as to the carrying trade of and with a country in the East with which our government has lately concluded

an important treaty. I invite attention to the fact that, while the commerce of France, a country just emerging from great domestic trials, is steadily increasing in that distant part of the world, that of the United States, so far as is evidenced by the nationality of ships engaged in the carrying trade, has seriously declined, and that in the face of great and growing domestic prosperity.

GEORGE WALKER,  
Consul-General.

UNITED STATES CONSULATE,  
Paris, France, June 3, 1881.

*Translation of an article in the Journal des Debats of June 2, 1881, relating to the carrying trade of China.*

On the subject of the convention which was signed at Peking the 31st of March, 1881, and which has been ratified by the Reichstag, additional to the treaty of amity, navigation, and commerce concluded between Germany and China on the 2d of September, 1861, some observations have been made calculated to give an incorrect idea of the importance of foreign commerce in general and of French commerce in particular, in the Celestial Empire.

The report laid before the Reichstag declares that the trade between Germany and China is in a bad condition and much diminished. It goes on to say that "in 1861 there were in China as vessels of transport, for long voyages and for coasting trade, 15,670 vessels of 6,900,000 tons burden, of which 3,602 were American, 8,276 English, 2,248 German; but in 1876, when the arrivals and departures from China were 21,490 vessels of 14,000,000 tonnage, only 1,907 were German against 10,609 English. The Americans had lost still more, having fallen to 31 vessels.

It is also stated that the number of French vessels in the extreme East had only decreased, while the movement of vessels plying between Germany and China had undergone no sensible variation.

But the number of vessels does not in reality represent the importance of the trade, as may be seen by an examination of the following short table, which is taken from the official report of the imperial customs of China:

Nations.	1872.	1873.	1874.	1875.	1876.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
Great Britain.....	77.96	76.71	76.30	73.93	71.25
United States .....	6.45	5.10	4.55	4.54	2.42
Germany .....	3.59	4.38	5.14	4.32	4.28
France .....	8.23	9.52	10.07	10.56	13.78

It will be observed that the improvement for France has been constant and regular, just in proportion as the disastrous year of the war has been left behind.

We regret that we have not the exact figures for the past two years. France has been steadily gaining on Germany. It must not be forgotten that, if the German coastwise trade is likewise very important, as compared with ours, the great lines of communication are principally commanded by England and ourselves.

The Messageries Maritimes Company sustains the greatest competition with the old Peninsular and Oriental Company of Great Britain, and it is that company which in fact represents French commerce in the port of Shanghai, but the Germans have no company of equal importance.

If we analyze the figures of imports and exports in 1875 and in 1876, in French and German bottoms, we should state that the imports amounted for the former in 1875 to 5,372,395 haikwan tails, and in 1876 to 5,610,163; for the latter in 1875 to 3,061,983, and in 1876 to 3,229,325; the exports amounted for the former in 1875 to 9,420,222, and in 1876 to 15,757,053; for the latter in 1875 to 2,969,345, and in 1876 to 3,359,343. These figures are more eloquent than a long commentary. As to the diminution of the American fleet, it is explained by the fact that the vessels of the house Russell (Americans) have been sold to Chinese parties, and have changed their flag, as have also a portion of the fine steamships of the Pacific Mail Steamship Company, also transferred to a Japanese company.

## THE COST OF LIVING IN EUROPE.

REPORT BY CONSUL BYERS, OF ZURICH.

The very frequent letters received at this office as to the comparative expenses of living in Europe lead me to submit the following data, which, though limited, are at least authentic.

Of course the writers of these letters are desirous of learning what it costs *strangers* to live in Europe, not *natives*, as the expenses of the one are no criterion whatever as to the expenses of the other. It is always understood, here as elsewhere, that temporary residents pay much more for a living than permanent ones do. The reasons are obvious. As Switzerland is very centrally located, and communication rapid and easy with surrounding countries, it is fair to consider that cost of living here cannot differ materially from that of other continental States. I purpose to give the principal items of expense of living here, whether in hotels, boarding-houses, or in housekeeping, from real figures; and, first, as to

## HOUSEKEEPING.

It may be remarked, first, that in twelve years the expense of living in Switzerland has advanced 33 per cent. In America the cost of living has been reduced in these twelve years almost as much as it has increased here. The cost of luxuries, however, remains here about as usual; and a comparison with America in this respect will almost never be possible.

Increased communication and cheap freights has tended to make the cost of the necessities of life more nearly equal the world over. Most valuable statements have been published by the United States Government on wages and labor in Europe, and the expenses of working-men's families, but the expenses of foreigners living here for a year or two are necessarily not referred to:

It is to be presumed that Americans come abroad, usually, for self-culture, for rest, or the education of their children, and, of course, wish to live in good houses in a respectable quarter of the city, and, in a way, suitable to their station of life. House rent, then, is the first item of consideration.

As a rule, apartments only are to be rented on the continent. They contain usually from five to seven rooms, with the necessary servants' rooms (at the top of the house), wood rooms, bath room, cellar, &c. They are usually rented for a term of years; and cost, in good quarters of the town, about 2,000 francs, or \$400, yearly. Single unfurnished rooms cannot ordinarily be had. Furnished bedrooms cost about \$12 per month, or about half what one would pay for similar rooms in a hotel. An acquaintance who has kept house in Zurich for years furnishes me with the following figures:

This gentleman's family consists of himself, wife, and two small children. They have an apartment of six rooms, on second floor, in the best part of the city; cost of same, \$500. They pay \$100 extra because of a short lease and extra good rooms. They employ two servants, a cook and maid of all work, and a children's maid who attends to part of the rooms. The first is paid \$1 and the second \$1.25 weekly,

with an occasional present of a dollar—say \$5 in the year. A sewing woman, whom they pay 60 cents a day and board, comes in for about a month in the year. The washing and ironing is all done in the house. They pay some \$65 yearly for fuel, which is dear; wood being \$10 to \$12 a cord, and coal \$9 a ton. Their house expenses, including marketing, wines, everything in fact except servants' pay, average 300 francs, or \$60, monthly, being \$720 yearly. Their miscellaneous expenses, including dress, books, schools, theater, lectures, excursions, &c., average 375 francs, or \$75, a month, being \$900 a year. Total expenses per year of family as follows:

Rent .....	\$500
Household expenses .....	720
Miscellaneous expenses .....	900
Servants' wages, including sewing woman, about .....	145
Total .....	2,265

This family lived well, entertained friends occasionally, and went on frequent excursions, living, as a rule, about as a professional man would do in one of our large western towns. A few years since, when they had but one child, kept a single servant, and lived in more modest, but equally respectable apartments, their expenses were but \$1,500. I know, too, of American families, two adults, and a boy in school, who live in the suburbs of the town, paying less rent, and whose expenses have been kept within \$1,300 per year. For a less sum than this it is hardly possible for a small family of strangers to live respectably in Switzerland. Natives may of course, and sometimes do live for considerably less; in fact, the incomes of many Swiss would not permit of their expending the smallest sum already mentioned. House rent does not differ materially, from the price given, elsewhere on the continent, certain towns of Italy excepted. In London a sitting room, bed room, and dressing room, cost about \$30 to \$35 a month; fires and lights extra. There is usually an extra charge for kitchen fires in London. In Munich rooms are some cheaper, in Paris not materially different; apartments rented by the month in Paris cost about \$1,000 or \$1,200 yearly, but this includes furniture.

In Wiesbaden a six room apartment, unfurnished, on third floor, costs but \$320; and that in excellent houses, too.

Occasionally families come to Switzerland, on great economy bent, who rent cheap houses, in out of the way parts of the town, hire a servant to come in a part of the day only, neither give nor receive entertainment, and manage to live for a very small amount of money.

#### PENSIONS.

For very small families or single persons the pensions are perhaps the cheapest way of living in the country. Their prices vary from \$1.00 to \$1.60 per day, wines, fires, lights, and fees to servants extra.

One can live well in a 7-franc pension, which, with extras for fires, lights, &c., will amount to about \$1.75 per day; with extra bill for wine, and private parlor, should one be used. These parlors can be had for about 60 cents a day.

A family of two adults and two children, counting the family as three persons, would pay about \$5.85 per day, including charge for parlor. This would amount to \$2,135.25 yearly, or an advance above housekeeping of more than \$700, as the items for miscellaneous expenses would be extra in either case. The above calculation is, of course, for first class pensions.

There are respectable pensions where a family of two adults and two

children could board, with everything included, at \$90 a month with use of "public parlor," an institution here, by the way, neither agreeable nor comfortable to most Americans. It is rare that decent board can be had at less than this, and the amount even then foots up to \$1,080 yearly, or less than \$300 below the expenses of a nice household.

#### STUDENTS' PENSIONS.

The prices at students' pensions average about 120 francs, or \$24 per month. This includes a bed-room and use of the public parlor. The meals will consist of coffee, bread, and butter, at breakfast; a tolerable little dinner, with two meats, vegetables and cheap wine at noon, and cold meat and tea for supper. The *wash*, too, will usually be provided for at most reasonable rates; indeed, as a rule, the wash does not cost half what it does in our American towns, where many articles might as well be replaced by purchase as to be put out to be washed. This is notably true of the shameless charges made for wash by keepers of many American hotels.

#### HOTELS.

The cost of living in continental hotels varies as much here as do hotel expenses in the United States. It is seldom that their tariffs are published, as the system is to have certain charges for rooms, lights, fires, and service, the meals being entirely extra. Hotel breakfasts are about the same (coffee, bread and butter and honey) all over the continent, and the charge is almost universally 30 to 40 cents. The charge for dinner (*table d'hôte*) in second-class hotels is usually 3 to 4 francs, in first-class hotels 5 to 6 francs. Supper costs about 3 francs. As a rule, one can live about as cheaply taking the regular meals at the hotel as by dining *à la carte*. Rooms, service, and lights cost about 5 francs in second-class hotels, and 8 francs in first-class hotels, making the charges per day for room and all meals, without wines, equal about \$3.50 to \$4 in first-class hotels, and about \$2.50 in second-class. Fires and fees to servants are extra; private parlors cost \$2 to \$3 per day.

In most European hotels favorable arrangements can be made for a length of time if not in the traveling season. "Hotel Holland" in Baden Baden, Germany, charges about \$3 per day; "Hotel Hinterhof" in Baden, Switzerland, \$3; "Grand Hotel" in Paris about \$4; other first-class hotels in Paris claim to give the same comforts and luxuries at \$3. In the south of France, at fashionable resorts, the hotel rates are higher than in Switzerland. In Italy they are, on an average, a little less.

#### SCHOOLS.

The expenses for schools on the continent are comparatively small. The yearly tuition fee at Heidelberg is only about \$50; at Geneva, \$25, and at Wiesbaden, in Germany, \$18. At Harvard, in America, the tuition is, I believe, some \$150. A student's yearly expenses at Harvard are reported as high as \$1,000. At Heidelberg, Geneva, or Zurich universities a student's outlay for room, board, and tuition need not average above \$400.

Private teachers receive at Zurich an average of 3 francs or 60 cents per lesson of one hour. Rarely teachers of some specialty receive 80 cents to a dollar. Teachers of language, music, and painting, are paid at about the same rates. The charges in Switzerland at the cantonal schools, having rank with our colleges, are extremely trifling.

I presume a young man could pay his fare to Europe and back, and graduate at a first-class German university, for less money than it would cost him to take a course in one of our little western colleges.

## MISCELLANEOUS EXPENSES.

The miscellaneous expenses which Americans resident in Europe have, outside of the items of lodging and food, are usually less than at home. Wines of course are much, at least a half, cheaper than with us. Clothing is cheaper on the continent than in the United States, and in England a good suit of gentleman's clothes cost almost a half less than in New York. Boots and shoes are considerably cheaper on the continent than in the United States. All articles, including ladies' dresses, manufactured of silk, are 20 to 50 per cent. cheaper. Children's ready-made garments are cheaper; ladies' kid gloves, 2 and 3 buttons, cost about 60 cents the pair by the dozen. Linens, laces, &c., are immensely cheaper than with us. In short, all the articles on our lists of importation are necessarily cheaper, as well as some that are not on our lists.

As to the expenses of travel and amusement, the advantage is largely with the continental states. First-class railway fare is less than 3 cents a mile. Second-class (which is oftenest used) about 2½ cents a mile. Steamer fares, about the same. Excursion tickets are sold by most companies at very greatly reduced rates.

Telegraphing in Switzerland costs but a dime for ten words. Best seats at opera or theater cost about \$1, in cities away from the great capitals, where they are still cheaper than in New York. Tickets to garden concerts, with the best of music, are frequently as low as 12 cents, as at the Touhalle in Zurich. The picture galleries are usually free to all. In short, the mere *pleasures* of life cost much less money on the continent than they do in the United States. The *necessities* are dearer and the abundance less.

S. H. M. BYERS,  
Consul.

UNITED STATES CONSULATE,  
Zurich, July 16, 1881.

## THE PRUSSIAN HARVEST.

REPORT BY COMMERCIAL AGENT WARNER, OF DUSSELDORF.

In a recent carefully prepared statistical publication by the ministers of agriculture of the prospects of this year's harvest in Prussia, comprising nearly two-thirds of Germany, the following estimates have been made:

[Average crop, 100.]

	Wheat.	Rye.	Barley.	Oats.	Legumin- ous pro- ducts.	Potatoes.
Prussian State.....	80	77	89	89	83	95
PROVINCES.						
East Prussian State.....	80	77	89	89	83	95
East Prussia.....	79	75	90	90	85	93.5
West Prussia.....	71.5	75.5	92.5	89.5	87.5	93.5
Berlin.....	90	80	90	95	-----	-----
Brandenburg.....	83	80.5	86.5	84	72	-----
Pomerania.....	76	61	88	90	84	96
Posen.....	83	79	88.5	87.5	80	95.5
Silesia.....	86	84	93	92	88	93
Saxony.....	82	77	89	88	79	91
Schleswig Holstein.....	61	73	94	94	95	97
Hanover.....	78	62	83	85	79	96
Westphalia.....	83	73	84	85	77	99
Hesse-Vassan.....	76.5	81.5	86	86.5	85.5	96.5
Rhineland.....	81	81	81	88	78	97
Hohenzollern.....	98	97	59	91	83	95

These figures show that in no single case have they reached the estimates made last year at this time, and if the predictions of many leading farmers in this vicinity (Rhineland) are to be relied upon, there is every indication of a still greater falling off, since the drought thus far in the season has been so very unfavorable for the crops. To such an alarming extent has the drought prevailed that there came recently to this city and Cologne large processions of despondent peasants and offered prayers in the churches that their little farms might receive rain. The meteorological observations taken since the 1st of last April indicate that there has been an average of only  $1\frac{1}{2}$  inches of rainfall against 6 inches for this period during the preceding year.

Taking 100 as an average crop, the prospects of last year were 105 for wheat, 78 for rye, 104 for barley, 101 for oats, and 106 for potatoes; and comparing these figures with those given above it will be seen that the numbers are only 80, 77, 89, 89, and 95. It will appear from these estimates that this year's harvest is prophesied to fall far short of the average yield, though some allowances must be made for any imperfect calculation, or should the weather yet prove to be more favorable. In the mean time, those mostly interested are exhorted not to feel discouraged over this premature panic. The most noticeable effect of the long drought has been on the hay crop, which, if reports are correct, will lose fully from one-half to two-thirds of its average yield, and the season is too far advanced to expect any better results from more favorable weather.

Considering the great importance of this crop to Prussia a failure in it to the extent promised would necessarily force this country to look to other sources for a supply, and in this event the United States, with the advanced system of packing hay in such compressed bales, should take advantage of an opportunity and increase the amount of her export to Germany. On information derived from a very reliable source, it was ascertained that the present prices for hay are double those of last year.\* How unfortunate it would be for the wretchedly poor laboring class in Germany if anything like the failure in crops should happen that is now predicted. In my opinion, it would be the cause of greatly increasing the tide of emigration to America, the land that has an attraction surprisingly wonderful for the German peasant. Their sole ambition seems to be turned in the direction towards America, or to make use of their own expression, *das gross Artige Land*. The grand country. Why, even the old and infirm become comparatively younger whenever America is talked about in their presence and they are told of the abundance of breadstuff that is to be had there.

WM. D. WARNER,  
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,  
Dusseldorf, July 29, 1881.

## THE WINE TRADE OF BORDEAUX; INCREASE OF IMPORTATIONS AND THE DECREASE OF EXPORTATIONS.

REPORT BY CONSUL ROOSEVELT.

It is of great importance to merchants and consumers to investigate the importation and exportation of wines in the department of the Gironde, the result of which will go far to corroborate statements already made in regard to the large quantity of wine imported here to sustain the trade of cheap wines.

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\* Present price here per ton 102 marks (\$24).

The production of the latter has greatly decreased the past few years, caused chiefly by the havoc made among the vines by the phylloxera and the inclemency of the seasons. The deficit must be made up in some manner so as to supply the trade, and, therefore, large quantities of wines are imported from Spain, Italy, and other wine producing countries in Europe, which, after undergoing questionable practices and manipulations, are re-exported as pure cheap Bordeaux wines, invoiced at about 100 francs the cask, containing 60 gallons, when it is almost impossible to buy the cheapest pure Bordeaux wine here for less than 200 francs per cask.

The importation of wine for the six months ending June 30, 1881, reached 13,994,002 gallons, an increase, as will be shown, of over three-fourths of the importation for the same period of 1880, the quantity then imported being 7,680,000 gallons and more than seven times the quantity for the same six months of 1879, which only reached 1,995,884 gallons.

Of the 13,994,002 gallons of wine imported, Italy furnished 467,852 gallons against 225,610 gallons during the same period of 1880, and 7,568 gallons in 1879. Spain sent 10,497,410 gallons the first six months of this year, against 7,196,946 gallons in 1880, and 1,979,098 gallons in 1879. From the Ottoman Empire, Austria, and Portugal, the following quantity was received: 3,028,618 gallons the first six months of 1881, against 257,444 gallons in 1880, and only 9,196 gallons in 1879.

The following figures give the exportation of wine in casks from this port during the first six months of the years 1881, 1880, and 1879: 12,658,998 gallons in 1881, 13,007,962 gallons in 1880, and 19,715,190 gallons in the corresponding period of 1879. The foregoing shows an important decrease in the exportations this year. The decrease chiefly consists in the exportations to the following countries, viz: England, Belgium, Uruguay, and Russia, the falling off in whose exports so much more than over-balanced the increase to the following countries, viz: Germany, La Plata, Holland, and the United States.

I must, however, here make the remark that the quantities of wines exported to the United States are incorrectly stated by the customs authorities at this port. The quantity given, 614,218 gallons in 1881, against 553,234 gallons in 1880, is such as has been directly shipped from Bordeaux to the United States. Large quantities of wines are shipped to Havre and Liverpool for transshipment to ports in the United States; these are credited to Havre and England.

The exportations of wines in bottles, which in general are the finer wines, have likewise suffered a reduction during the first part of this year, compared with the same period of the two previous years. The total exportation in bottles reached, on the 30th of June, 1881, 1,141,756 gallons, against 1,358,786 gallons on the same date, 1880, and 1,444,762 gallons in 1879.

This decrease consists principally in the exportations to England, being only 307,692 gallons the first six months of the current year, while the exportations for the same period last year reached nearly 600,000 gallons. In the inverse sense, the exportations of fine wines in bottles have increased with the United States, the quantity up to June 30, 1881, being 134,486 gallons, against 76,538 gallons in 1880, and 66,000 in 1879.

In the entire comparative statement, it can be seen that the importation of wine increases and the exportation decreases.

GEO. W. ROOSEVELT,  
*Consul.*

UNITED STATES CONSULATE,  
*Bordeaux, August 1, 1881.*

IMPORTATION OF TIMBER INTO WALES.

REPORT BY CONSUL SIKES, OF CARDIFF.

I have the honor to send you herewith a table of the rates and charges on timber imported into the port of Newport, Monmouthshire, in my consular district.

Some years ago a great prejudice existed at Newport against pitch-pine timber, but it has within a very recent period forced itself upon public favor, and has now acquired a very decided sphere of consumption. Considerable quantities of this description of timber have been imported into Newport from Pensacola, Savannah, Doboy, Darien, and Brunswick.

As will be seen by the table of rates, every facility is offered by the Alexandra Dock Company for an extension and cultivation of this important branch of import trade, and the spread of this information may be useful to our timber shippers.

WIRT SIKES,  
Consul.

UNITED STATES CONSULATE,  
Cardiff, August 9, 1881.

ALEXANDRA DOCKS, NEWPORT, MONMOUTHSHIRE.

The spacious timber float (having an area of over 10 acres) at the above dock is now completed and in working order, so that the Dock Company is in a position to offer greatly increased accommodation and facilities to importers of timber.

Special facilities are also afforded at this dock for carrying on the deal trade, and importers will find their interests carefully studied and protected in all respects.

Importers of mining timber for the midland district will find special advantages either for forwarding direct, or storing cargoes at the dock, as they may desire.

Outward cargoes being always obtainable here, merchants and charterers may calculate upon saving say 2s. 6d. per standard in the homeward timber freights, in consideration of vessels discharging at Newport, as compared with ports where outward freights cannot be secured. The great advantage being that vessels are saved the expense and time occupied in shifting ports.

The railway facilities at this dock are complete; there being through communication with all the great railway systems in the kingdom.

Table of rates and charges on wood goods is annexed; (but the company reserve the right to deviate from or to make any alteration in these charges which they may from time to time find necessary.) Every other information may be obtained on application at the company's offices.

J. S. ADAM,  
Secretary.

Rates and charges on wood goods.

TIMBER FLOATED OR PONDED.

Hewn and sawn timber :		
Per load of 50 feet :	s.	d.
Wharfage.....	0	6
Floating logs to pond.....	0	3
Landing expound and loading to trucks or craft .....	0	9
Rent :		
Sawn pitch pine and Swedish Memel and Dantzic timber per log per week .....	0	$\frac{1}{4}$
Other hewn timber per log per week.....	0	$\frac{1}{4}$
Use of rafting, chains and staples (if required), 2d. per load.		

## TIMBER STACKED ON QUAY.

Deals :	s.	d.
Wharfage per 120 pieces.....	1	0
Deal ends :		
Wharfage per 120 pieces.....	0	4
Deals and deal ends, per St. Petersburg, standard hundred :		
Ex ship to trucks, direct.....	2	9
Landing, sorting, and stacking.....	3	6
Delivering from stock to trucks or craft.....	2	0
Rent, per week.....	0	1
Stettin and Dantzic oak, and other sinking timber :		
Per load of 50 feet :		
Wharfage.....	0	6
Per load of 40 feet :		
Receiving from ship and delivering to trucks direct.....	1	3
Receiving ex ship, landing, and stacking on quay.....	2	0
Delivering from stock to railway trucks.....	1	0
Rent, per week.....	0	$\frac{1}{4}$

## MINING TIMBER.

Per load of 50 feet :		
Wharfage.....	0	4
Ex ship to trucks, direct.....	1	0
Landing and stacking on quay.....	1	0
Delivering from stock to railway trucks.....	1	0
Rent per week.....	0	$\frac{1}{4}$

Quotations for labor on all other classes of wood goods on application.

All timber is measured by Her Majesty's customs bill of entry officers, for which the charge is 4d. per load, of which one moiety is paid by the ship, as per custom of the port.

The charge for measuring mining timber is 6d. per load, and one moiety of this is paid by the ship.

## THE TIMBER PRODUCT OF COLOMBIA.

## REPORT BY CONSUL SMITH, OF CARTHAGENA.

Thinking that the lumber dealers of the United States may desire more specific information concerning the timber products of the forests that surround Carthagena than I gave in my annual report for 1880, I have the honor to submit the following:

Besides cedar, mahogany, *lignum-vitæ*, *nispero*, *limoncillo*, and *colorado* timber, there exists an abundance of other valuable woods, such as *viva-seca*, lance-wood, rosewood, *guayba urabà*, *dividivi*, and *santa cruz*. There are also a number of woods of the first quality for naval construction, such as *corazon verde* (green heart), &c.

There is a wood called *olleto*, out of which piles can be made, that cannot be destroyed by the *teredo*. Of the woods I have mentioned, the supply of cedar and mahogany are inexhaustible. Of ebony, rosewood, *colorado*, and *lignum-vitæ*, nearly so. A cargo of timber can be procured that will average nearly 800 feet per stick. A friend of mine has a hewn stick of cedar which measures 48 by 42 inches by 19 feet, and a hewn stick of mahogany which measures 34 by 24 inches by 32 feet. I have seen a canoe 63 feet in length by 4 feet 4 inches in width, that had been hollowed out of the *heart* of a cedar tree, and one of 70 feet in length by 10 feet in width that was hollowed out of the heart of a *campana* tree. There are several trees standing in the forests near Monteria that have a circumference of 30 feet.

In this climate timber must be felled when the sap is out of the tree and leaves full grown. If felled when sap is rising or leaves sprouting the color will soon deaden, insects attack it, &c. It should be allowed

to season for six or eight weeks after felling before cross-cutting and hewing, to avoid cracking and splitting. Cedar and mahogany felled and hewn under these conditions, with sharp corners and parallel faces, free from sap, cracks, &c., costs by the cargo, free alongside the vessel in Cispati Bay, the mouth of the Sinu River, \$30 to \$32 per thousand feet. This timber to be 20 to 40 inches or more square, and 5 yards or more long. If less in size the cost free on board is from \$20 to \$30 per thousand. Of course, if the timber is not so well cut, and has round corners, it will cost much less per thousand, say from \$16 to \$20.

The time consumed in getting out a first cargo would be about four months—perhaps three. Afterwards, if the capital was forthcoming to hire the necessary workmen, a cargo could be shipped every month.

Contracts for securing labor are always made with the influential man of a village; never with the individual workman. The contract must be drawn up on stamped paper in the manner prescribed by the laws of the country.

The facilities for getting out timber and placing it on board vessel are exceptionally good, much better than on the Central American and Mexican coasts.

I would advise dealers in cedars and hard woods to send down competent agents to visit these forests and form their own judgment in the premises. In my opinion the result of their observations would prove highly satisfactory and lead to a most profitable business. Should any dealer in lumber desire samples of the hard woods of this country, I am prepared to furnish them, provided he will pay the transportation charges.

EDMUND W. P. SMITH,  
*Consul.*

UNITED STATES CONSULATE,  
*Carthagen, United States of Colombia, July 22, 1881.*

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## DECLINE OF THE TOBACCO INDUSTRY IN WESTPHALIA.

*REPORT BY CONSUL WOLFGANG SCHOENLE, OF BARMEN, PRUSSIA.*

The Prussian province of Westphalia is justly noted for its industrial enterprises, of which one of the most important is the manufacture of tobacco, and more especially the manufacture of cigars. This latter branch of trade, which gives employment to thousands of persons of both sexes, has been seriously injured of late years by the ever-recurring tax projects by the Imperial Government, and also by the threatening prospect of the eventual introduction of the "monopoly," a pet project of the Imperial chancellor, who desires to subject the production and trade of tobacco to the supervision and control of the Imperial Government, thereby utterly annihilating the whole tobacco business in the hands of private individuals. This unsettled condition of things has weighed heavily against the whole tobacco business, and another factor sharply militating against it in Westphalia is "the Strassburg tobacco manufacture," an institution which, up to the year 1871, was part of the French "Regie," and which, after the annexation of Alsace and Lorraine by the German Empire, has been carried on by the state for the

benefit of those territories. There are scattered branch establishments of this *state institution* in nearly every principal city of this consular district, and as they are in a position to undersell the trade in the hands of private enterprise, they sensibly curtail the already small profits of the same.

The extensive smuggling carried on over the Dutch frontier also militates against this already languid trade, and discourages all honest enterprise. The continual decline of tobacco manufacture in Westphalia has brought about a reduction in the number of working-hands for the last few years, and the labor outlook in this branch is growing steadily worse.

The result of all this has been an increased emigration from Westphalia to the United States, and should the monopoly become an accomplished fact, the tobacco industry in this district must receive its death-blow, and only the resource of emigration *en masse* would be left to thousands as a refuge from destitution. In connection with this the annual report of the Chamber of Commerce at Minden gives utterance to the following piteous and almost desperate words :

The emigration from this district is lamentably large, and it may be permitted to us, as patriots, to put the question : *Has the German Empire been founded for the purpose of driving forth its citizens into exile ?*

WOLFGANG SCHOENLE,  
Consul.

UNITED STATES CONSULATE,  
Barmen, August 5, 1881.

## THE CHEESE PRODUCT OF EASTERN ONTARIO.

REPORT BY CONSUL PRINCE, OF BELLEVILLE, CANADA.

I had the honor last year, in my dispatch No. 21, to submit some facts relative to the manufacture of cheese, accompanied by a report published by the Dairyman's Association of Eastern Ontario.

Eastern Ontario includes the territory between the Ottawa River on the east to the boundaries of the city of Toronto. In this territory, during the season of 1880, there were handled, by two of the principal firms, 210,000 boxes, or 11,300,000 pounds. The average price was about 11 cents per pound, showing a total value of about \$1,250,000, and adding that handled outside of these two parties, it is safe to say that the cheese product of Eastern Ontario for 1880 was of the value of \$2,000,000. All this cheese is exported to Europe.

The prospects for 1881 are that prices will rule higher. Although the make in June was unusually large, the dry weather of July and August, affecting the pasturage, has made a large shrinkage in production in those months, which induces the opinion, in some quarters, that the product will not be as large as last year. I am inclined to think, however, that the yield will be as large, if not somewhat larger, as all the factories are now running that were last year, and several new ones in addition.

The manufacturers are keenly alive to all the improvements that can be made. In this vicinity new machinery is being introduced, which, it is claimed, will be of great advantage. I am informed by the proprietors of one or two of the factories in which it is introduced that it is a suc-

cess, and will enable those using it to make a far better cheese, and more of it, at a less cost, than under the old method.

The machinery is a Canadian invention, but is patented in the United States, I understand. It is intended by the manufacturers to have this machinery on the grounds and in operation for the manufacture of cheese during the Industrial Exhibition at Toronto in September, 1881.

FRED. W. PRINCE,  
*Consul.*

UNITED STATES CONSULATE,  
*Belleville, Canada, August 15, 1881.*

## THE BEET-ROOT SUGAR INDUSTRY IN GERMANY.

*REPORT BY GEORGE E. BULLOCK, OF COLOGNE.*

The Beet-root Sugar Industry Association of Germany held its first annual meeting, for 1881, at Cologne, May 23-26. The proceedings consisted of addresses and reports respecting the development and state of the beet-root sugar industry. As much interest has recently been shown on this subject in the United States, it may be opportune to present a brief sketch of its growth and present condition in Germany.

For the discovery of sugar in the beet and the process of its extraction, according to Dr. Schelbler, in a memorial address to the Beet-root Sugar Industry Association, we are indebted to two German scientists, Dr. Andreas Sigismund Marggraf, professor of chemistry and member of the Berlin Academy of Science, who was born at Berlin, March 3, 1709, and to his pupil and successor, Franz Carl Achard, born at Berlin, April 28, 1753.

In the year 1747 there appeared in the reports of the Berlin Academy a communication by Professor Marggraf, wherein was fully detailed the process by which he had been enabled to "find beet-root sugar in abundance, exactly like that extracted from the sugar-cane." In this communication Professor Marggraf spoke of the feasibility of profitably manufacturing sugar out of the beet-root, and in this respect said:

From the experiments here set forth it is evident that this sweet salt (the chemists of that time designated severy soluble matter "salt") can be prepared in our region just as well as where the sugar-cane grows.

It does not appear, however, that Marggraf followed up his discovery by practically demonstrating its capability of being profitably developed. This was left for his pupil, Achard, who, on the 11th day of January, 1799, addressed in a petition to King Frederick William III, a "Treatise upon the preparation of sugar from the beet-root, much cultivated as cattle-food in many of the provinces of your Majesty's domains," and prayed, in order that the petitioner might "be enabled to enjoy the fruits of his labor, prosecuted for fifteen years with great diligence and cost," the concession of "the exclusive privilege for ten years for the manufacture of native sugar and the grant of sufficient land, whose soil would be adaptable to beet-root culture," where said beet-root culture would be carried on after his method, so that he could be placed in a position to prosecute his enterprise, for which he had been assured of the assistance of capitalists.

After searching examinations and manifold negotiations, the King granted a loan of 50,000 thalers (\$35,700), with which Achard bought suitable land in Lower Silesia, where, in 1801, he built a factory, which was set in operation in March, 1802. Achard's enterprise found many imitators in that same year. General Blanknagel erected a sugar factory in the government of Toula (Russia), and in this and the following year two sugar factories were erected near Paris and several in Prussia, the most important of which were those of Baron von Koppy, near Strehlen, in Lower Silesia, and of Von Nathusius, in Althaldensleben. But shortly after this the wars of Napoleon swept over Prussia, and for many years the development of the sugar industry made but little progress.

In the winter of 1809-'10 the factory of Achard fell a prey to the flames, and its founder was left heavily involved in debt. Nothing daunted by these misfortunes, Achard courageously set about to devise ways and means to extricate himself from debt and start his enterprise anew. He succeeded in obtaining a release from the King of the debt of 50,000 thalers, and a new advance of 20,000 thalers, wherewith he paid his most pressing debts, and erected upon the ruins of his factory a school for practical instruction in the beet-root sugar industry. His efforts, however, did not meet with the success he had hoped. The industry made no progress, and Achard, at the time of his death, April 20, 1821, had not experienced the satisfaction of seeing the prosperity of that industry to which he had devoted the best years of his life, and for which he had sacrificed fortune and an honorable position. It is true that about this time the continental blockade had driven the price of sugar up to 6 to 7 francs per pound, avoirdupois, and after Napoleon offered a million of francs premium for beet-root sugar many sugar factories had been erected in France; but as they had been created by the empire they disappeared shortly after the French restoration. One, only, among all the sugar manufacturers of France, was able to bear up against the flood of disaster which swept over them, and this exception was notable, inasmuch as it marked the turning-point from whence the native sugar manufacture rose through many difficulties to be self-sustaining.

Crespel Delisse established a factory at Lille on the plans indicated by Achard, and subsequently another at Arras. By remarkable energy and capability he raised the industry from prostration to prosperity, and in 1828 he was owner of three factories and part owner of three others. The number of beet-sugar factories in France at that time reached 103. During the following twenty years Crespel Delisse remained the great authority in all matters pertaining to the industry, and was ever the honest adviser and instructor of those who sought information from the store of his experience.

From that time forth the industry grew apace. In France, in 1837, beet-root sugar was first subjected to taxation, and there were 585 factories in that country, which produced 1,000,000 centners of sugar.\* Germany had at that time 156 factories, which produced out of 2,764,000 centners of beets 153,300 centners of sugar, or 1 centner of sugar to 18 centners of beets. In 1841 the system of taxing the beet-root was introduced into Germany by imposing a tax of 3 pfennigs per centner. This tax has been gradually increased until it now amounts to 80 pfennigs† per centner. This method of levying a tax upon the beet-root instead of upon the sugar produced has worked satisfactorily, and is cited approvingly in contrast to the changeable systems of other countries.

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\* One centner is equal to 110.5 pounds avoirdupois.

† 80 pfennigs are equal to 19 cents.

The following table shows the growth of the sugar industry in Germany for the last five decades:

Season.	Number of factories	Quantity of beet-root worked.	Raw sugar produced.	Rate of tax on beets per centner.	Taxes received, less amount repaid for drawback.
		<i>Centners.</i>	<i>Centners.</i>		
1840-'41.....	145	4, 829, 734	284, 102	3	15, 841, 119
1850-'51.....	184	14, 724, 309	1, 066, 979	30	15, 628, 293
1860-'61.....	247	29, 354, 032	2, 530, 520	75	25, 799, 490
1870-'71.....	304	61, 012, 912	5, 259, 734	80	39, 501, 081
1880-'81.....	831	126, 415, 938	10, 600, 000	80	50, 000, 000

The foregoing table shows that since 1850 the sugar industry of Germany has doubled with every decade. A wonderful progress, truly, whose effect upon the economical condition of the country can hardly be estimated. A drawback of taxes is allowed upon sugar exported, and is calculated upon the basis that 11.75 centners of beets yield 1 centner of sugar. This estimate has been proved to be practically correct, the average for the last nine years being 11.60 centners of beets to 1 centner of sugar. The consumption of sugar in Germany falls greatly below that in the United States or England, having averaged for the last three years 14.50 pounds, avoirdupois, per head, or about one-third of the annual average consumption per head in the United States. This comparatively small consumption is a cause of complaint by the sugar manufacturers and is generally attributed to the rate of taxation imposed on the industry. If we take 30 marks as the average price of 96 per cent. raw sugar, including taxes (and the price has not recently varied from this), the tax of 80 pfennigs on the beet-root increases the price of sugar nearly 50 per cent. A reduction of 45½ per cent. upon the rate of taxation upon sugar was made by the French Government, October 1, 1880, and in the following six months the consumption of sugar had increased at the rate of 35 per cent. per annum, while the French Minister of Finance had estimated an increase of 20 per cent.

This rate of increase will show for France, in 1881, a consumption of 27¾ pounds, avoirdupois, per head. It is therefore much discussed whether it would not be advantageous for Germany to follow the example set by France. This course would no doubt widen the field of agricultural activity. The industry is becoming more purely agricultural from year to year; that is, it is no longer the large landed proprietors and capitalists who alone erect and operate sugar factories, but the small land owners, and even the peasants, unite and build factories for the manufacture of sugar from the beets raised in the neighborhood.

Beet-root culture, as practiced in Germany, does not in the least affect the yield of other products, for the thorough cultivation which it requires increases the fertility of the soil and does not exhaust its mineral constituents; the sugar is drawn from the atmosphere, and the richer the beet is in sugar the less mineral substance it contains. It gives remunerative employment to the laborer in winter, and in summer is an inexhaustible source of great and increasing wealth to the nation.

GEO. E. BULLOCK,  
Consul.

UNITED STATES CONSULATE,  
Cologne, June 1, 1881.

## TRADE HABITS AND CUSTOMS OF GHENT.

REPORT BY CONSUL WILSON.

I arrived at my post of duty too late in the quarter (June 24) to enable me to sufficiently inform myself as to the custom and manner of trade so that I could make report as is required by section 562, Consular Regulations, intelligently at an earlier day.

I am preparing some reports on special subjects, but in the mean time I forward the quarterly report, immature as it is, required by the above section. As the best manner of obtaining the desired information with the greatest accuracy, I prepared a series of interrogatories and submitted them to divers business men of the city, with a request that they would write answers in the spaces indicated, and return them to me. I know of no better method to show an index to the trade and business customs prevailing in this consular district than to give these questions and a digest of the answers received.

## I.

1. Please state the usual terms on which merchandise is bought and sold; whether for cash or on credit, whether for export or otherwise.

Answer. While many sales are made for cash the greater proportion of the sales are made on credit. By cash is meant cash in ten days, by credit is meant ninety days. No collateral security is required; they trust to a man's business reputation and ability. The laws are very stringent, providing heavy penalties for a man trading without capital, or buying without having the wherewith to pay, and this is generally sufficient security.

2. What discount is usually allowed? Is it from custom, or by reason of cash payment? Is it uniform, or does it vary in the same as well as different goods?

Answer. A discount is allowed, not always, sometimes by reason of the custom, and sometimes for cash. The following gives the custom in some cases of cash:

	Per cent. discount.
Cotton and flax yarns.....	1½
Manufactured cottons.....	2 to 2½
Linens.....	2 to 2½
Cloth—woolen.....	5 to 10

Some goods, cloths for instance, always have a discount, whether the sale is made for cash or on credit. Many other goods obtain a discount or not, according to agreement; but always something off for cash.

3. Are these discounts allowed as a bonus to the buyer; and, if so, does it make any difference whether he buys for himself or on commission, and whether for exportation or not?

Answer. They are allowed to the buyer, whether purchasing on commission, for exportation, or for his own use.

## II.

Are any bounties allowed on articles exported?

Answer. None whatever, other than the discounts mentioned in the preceding chapter arising upon sales, neither in favor of national nor any other vessels.

## III.

What are the customary charges or commissions for purchasing and shipping goods from hence to other countries—especially to the United States?

Answer. The commission to be allowed to or charged by a commission merchant or factor here for purchasing and shipping to his principal in the United States or elsewhere is much the same as in other ports for like service, say from 1 to 2 per cent., to be paid by the buyer. But there are no port charges or dues *to be paid on exports*. If one loads an entire vessel with his own cargo he would have to pay the necessary expenses of loading, and also wharfage while his vessel occupied her place at the wharf; but for shipment made by any of the regular or usual lines of vessels no charge is made and none should be paid.

It is the custom for goods sold for exportation to be delivered on board the vessel free (F. O. B., as it is called, *free on board*), and this whether shipment is made from Ghent, or whether it has to be sent to Antwerp. If the agreement is F. O. B. *at Liverpool*, freight from hence to Liverpool is added at real cost; so that the bill of a purchaser ordering goods from here to be shipped to him in the United States would consist of but three items.

1. The cost of the goods, to be paid to the seller.
2. The commission for purchasing, to his agent.
3. Freight, to be paid to the vessel.

## IV.

State the customary cost, charges, and commissions to be paid in a reverse case, that of *importation from the United States*. Please state in detail.

Answer. Commissions, same as above, 1 to 2 per cent.; brokerage, 15 cents per registered ton; dock dues; these were increased on January 1, 1881, from 3 cents per ton to 6 cents, Belgium measure. Shed or quay dues, wharfage, increased same time from 1 to 2 cents per ton; trade or city dues, none; lighterage, as per agreement, but very cheap; labor, 20 cents per ton; cartage, 30 cents per ton; storage 20 to 30 cents per ton.

No other import duties or taxes (except those provided by the law of the kingdom in its revenue system; to which I do not refer) are chargeable. All the charges last given are, of course, to be charged to the shipper, though paid by the consignee, and also, of course, added to the cost of the goods.

## OBSERVATIONS.

The exportations *from* Ghent to the United States are made through Antwerp or via Liverpool. They consist principally of rags and waste paper, rabbit-hair and skins, flax and linen, plants, lace, human hair, ultramarine blue, and bristles, amounting in 1879, gross, to \$428,373.59, and in 1880 to \$738,458.57.

The importations from the United States to Ghent are done in the same way, so that the United States obtain no credit therefor. For instance, in the report of the imports at the port of Ghent for 1879 (the latest which has been published in condensed form) cottons of every kind are stated at 32,893,240 pounds; of this, but 549,718 pounds came from the United States, *or is so reported*, while that received from Great Britain is stated at 30,967,044 pounds. I have no authority for saying

that any of this last came originally from the United States, but I believe it did, and that if we had the necessary ships to do our own carrying trade and transport our products to the place where they were wanted and were to be used, the reports would show a large proportion of the cotton imported from England to come from the United States.<sup>1</sup>

Some things the United States can make or produce better than Belgium, and *vice versa*. An exchange of the products of either country will be beneficial to both. Among those to be sent by the United States to Belgium, with profit both to the producer and the consumer, I would suggest cotton, wheat, all kinds of grain, flax, agricultural implements, starch, beef, &c. Among those to be brought from Belgium to the United States, I name first those which are already being sent, of which a list is given above, and to that I add linen, chicory, cement, tile, and last, but not least, the large, almost enormous cows of Belgium and Holland, for the purpose of breeding, improving our beef cattle by increasing their size, so that the same outlay in time, trouble, and expense of raising will bring an increased return in the shape of each slaughtered beef weighing from 100 to possibly 3,000 pounds more than at present.

These are a few crude hints how our commerce may be extended and improved, with advantage to both parties.

THOMAS WILSON,  
*Consul.*

UNITED STATES CONSULATE,  
*Ghent, July 16, 1881.*

## GERMAN PETROLEUM AND PETROLEUM WELLS.

REPORT BY CONSUL FOX, OF BRUNSWICK.

In my communication of April 9, 1880, I had the honor to acquaint the Department with certain facts concerning petroleum-boring in Germany. During the last few weeks, and more especially the last week, reports have been rife as to the great success which has been obtained by the German Petroleum Boring Company and others, in the vicinity of the city of Peine, province of Hanover. Acting under general instructions of the Department, which require all matters of moment to be reported at the earliest possible day, I yesterday visited the "oil regions," and have the honor to report the following:

On the Hanover-Brunswick Railroad, about half an hour's ride from Brunswick, lies the quiet little city of Peine; 3 miles to the north of this city that barren tract of land known as the Lüneburger heath commences; about 7 miles from Peine is the village of Oelheim, or "New Pennsylvania," and it is here that the startling and almost unlooked-for success has been obtained.

Traces of petroleum have been found, commencing in the village of Klein Schoppenstatt, in the Duchy of Brunswick, running northwesterly in a direct line for 40 miles to the village of Weetze, on the river Aller, a navigable tributary of the Weser. Petroleum is found on this line in belts or spots, as has been the case in Crawford, Warren, Venango, and other counties in Pennsylvania. At present two of these belts, or spots, are known—the Oelheim belt, near Peine, and one 8 or 10 miles to the northwest.

The Oelheim belt contains about 25,000 acres, and embraces the villages of Edemissen, Odessa, Wendesse, and Steterdorf. This tract is

controlled by Emil Meyer, esq., of Bremen, who obtained the concession from the owners some years since.

All the present borings are confined in a space of about 20 acres. There are twelve pumping-wells in operation, yielding 1,250 barrels a week; six wells are in process of boring; five wells have been lost. The German Petroleum Boring Company has eight wells working, yielding 56 barrels a day; they commenced work June 1, 1880. The excitement, however, was caused by the well owned by A. M. Mohr, esq., of Bremen. It has received the name of *Spring quellen*. About ten days ago the oil commenced gushing out in such quantity that the pump, working at 60 strokes per minute, turned out 260 barrels in one day. It is now running regularly 220 barrels every twenty-four hours.

The oil from this well contains 45 per cent. lubricator, 40 per cent. illuminator, 5 percent. naphtha. In none of the other wells has naphtha been found. The mass has a dark reddish-yellow appearance, and flows in a stream of about the thickness of a man's arm, has a specific gravity of 0.888 at 14° Reaumur; temperature, 8½° Reaumur. The average borings shows the following to be the formation: At a depth of 10 meters, sand, red granite, and flint is found; at 17 meters, blue-grayish diluvial clay; at 20 meters, blue clay and chalky layers; from 20 to 35 meters, marly clay; 35 to 40 meters, stone and quartz; 40 to 48 meters, hard sandstone with pyrites; at this depth the first traces of petroleum are found; 48 to 54 meters, sandy clay, with large quantities of petroleum.

The German Petroleum Boring Company have at Oelheim a large tank, capable of holding 360,000 liters; this they have connected with their refinery at Peine by a pipe-line. The refinery has a capacity of 80 barrels a day, and is to be largely increased. For barreling, American barrels are alone used, owing to their peculiar fitness and cheapness. Americans barrels cost 4 to 4.50 marks apiece; the German coopers ask 11 marks. The parties now boring are the German Petroleum Boring Company, of which Herr Consul H. H. Meier is president, Messrs. A. M. Mohr, and the Messrs. Kleissen. An English association and some parties from Hamburg and Hanover will commence in a few days. The works are visited daily by large numbers of capitalists and business men from all parts of Europe.

It is not the purpose or province of this report to enter into minute details, but simply to call attention to this embryo industry, which at this time is an all-absorbing topic, and is commanding a good deal of German thought and capital.

WILLIAMS C. FOX,  
Consul.

UNITED STATES CONSULATE,  
Brunswick, August 4, 1881.

## CULTIVATION OF THE SILK-WORM IN FRANCE.

REPORT BY MR. FISH, CHARGÉ D'AFFAIRES AT BERNE, SWITZERLAND.

During my recent absence on leave, I had occasion to pass through Lombardy, and was much impressed with the belief that the successful culture of the silk-worm could be carried on in many portions of the United States as favorably as in Lombardy, if our cultivators should seek land and climate of similar nature, and devote to the culture of the mulberry tree and the silk-worm the same care and labor as is given to them in Lombardy.

The value and importance of such an industry, introduced and established in the United States, cannot properly be estimated. The following sketch of the cultivation of silk-cocoons in France, taken from a recent report of the Swiss consul at Marseilles, will, however, shed some light on the subject.

The production of silk in France dates from the commencement of the seventeenth century, but it is only from the middle of the eighteenth century that we have sufficient information to enable us to fix its real importance.

From 1760 to 1780 the annual average crop of cocoons amounted to 6,600,000 kilograms, which, at the price of 2.50 francs (50 cents), represents a value of 16,500,000 francs (\$3,500,000).

After the revolution of 1789 this product was neglected on account of the introduction of cotton goods at the expense of the silk ones. It was not until 1820 to 1830 that a serious revival took place, bringing the average annual production up to 10,800,000 kilograms, which, at 4.10 francs (82 cents) per kilogram, represents a value of 44,280,000 francs (\$8,856,000) per annum.

From 1830 this product was very rapidly developed; it attained from 1841 to 1845 an annual average of 17,500,000 kilograms, yielding at the price of 3.86 francs (76 cents) a total of 66,500,000 francs (\$13,300,000); but the greatest production was in 1853, in which year it rose to 26,000,000 kilograms, which, at the price of 4.50 francs (90 cents), produced the enormous value of 117,000,000 francs (\$23,400,000).

After this splendid result, the next two years gave very fine results, amounting to 100,000,000 francs (\$20,000,000).

After 1856 the disease of the silk-worms, which had already existed for some time, reduced the crop of cocoons to 7,500,000 kilograms, but the price being at that critical moment at 7 francs (\$1.32) per kilogram, a revenue of 57,000,000 francs (\$11,400,000) was attained.

During the past fifteen years this crop has experienced enormous fluctuations; from 16,436,258 kilograms in 1866, it fell to 8,076,545 kilograms in 1869; it rose afterwards, in 1870 and 1871, to 10,000,000 kilograms; it varied during the three following years from 9,000,000 to 8,000,000 kilograms, attained nearly 11,000,000 in 1875, and fell to 2,400,000 kilograms in 1876, and in 1877 rose to 12,000,000 kilograms.

Finally, the production has been in 1878 8,000,000; in 1879, 5,000,000; and in 1880, 6,500,000 kilograms.

I believe this sketch of the silk cultivation in France may be of interest to the Department. Should it prove of use to our silk interests it will more than have repaid me for bringing it to your attention.

NICHOLAS FISH,  
*Chargé d'Affaires.*

LEGATION OF THE UNITED STATES,  
*Berne, August 15, 1881.*

## THE SILK CROP OF EUROPE AND THE ORIENT, FOR 1881.

REPORT BY CONSUL PEIXOTTO, OF LYONS, FRANCE.

Having attentively followed the subject, I have now the honor to submit the following report upon the silk crop of Europe and the East, for the present season of 1881:

*France.*—The fourth age (the most critical) has, with few exceptions

and rare losses, been successfully accomplished. The actual crop will therefore be one of the most successful known for several years, having particular regard to the quantity of silk-worm eggs put to hatching.

The results obtained give in numerous instances 40, 45, and even 50 kilograms per ounce, a result unknown since the prevalence of the *mala-die des vers à soie* (silk-worm's disease) some thirty years ago, while the quality of cocoons appears excellent. Prices of cocoons for the moment are: at Aubenao, 4 to 4.25 francs per kilogram; at Saint Ambroix, 4 to 4.10 francs; at Alais, 4 francs; at Avignon, Orange, and Bollène, 3.75 to 3.90 francs. In fact, the cocoon market is in full activity in the southern departments, and on the streets of Avignon 20, 30, 40, and even 50 wagons charged with cocoons may daily be seen. The qualities in general are excellent and prices very fair, averaging 4.10 to 4.20 francs per kilogram in the Cevennes, and 3.85 to 3.95 francs in Provence, for the yellow variety (superior quality), single cocoons. The green variety command 3.10 to 3.25 francs per kilogram.

*Italy.*—The tardiness of the crop in Upper Italy has been in great part recovered in the plains of Lombardy, Piedmont, and Venetia. The greater part of the hatchings have arrived at the fourth age.

In the mountains the progress has been less rapid, the second and third ages having only been reached. The latest accounts are not so favorable. Deficiencies are reported in the yellow races of Lombardy and Venetia, but as the yield of these in those provinces is limited, this will have but a slight bearing upon the general result, and the green races give the fairest expectations. In Piedmont, except in isolated instances, the prospects of the crop are still better. The worms have arrived at their third incubation in the districts of Coni, Mondovi, and to the fourth age in those of Alba, Asti, Turin, Pignerol, and the Lomelline. The chambers are in their fourth age all over the plains of the Po, Milanais, Briance, Mantua, the Dutches, &c. The cool weather has removed all apprehensions of injury on account of the usual extreme heat. The crop will, however, probably be inferior to last year. In the Tyrol the fourth age has been reached and the prospects are good. In Tuscany a crop equal to last year may be anticipated. The high price of leaves, in spite of their abundance, indicates clearly a good crop. Prices of yellow (superior quality) cocoons at Florence are quoted at 3.90 to 4.20 francs. At Naples and in Sicily, the weather has been constantly unfavorable, and the crop will be greatly reduced.

*Spain.*—The crop has been harvested and has resulted favorably, exceeding very considerably that of 1880, both in quality and quantity. Spanish silk is deservedly esteemed among the very best.

*Greece.*—The yellow races of cocoons show bad results, owing to the defective character of the eggs.

*Sgria.*—Everywhere complaints on account of the scarcity of the mulberry leaves.

*China.*—Numerous Shanghai telegrams from different sources confirm the deficiency in the crop. The quantity for export will probably not exceed 65,000 bales. From Canton the second crop is reported favorable.

*Japan.*—A very good crop, superior to 1880, is reported on the best authority.

I shall have the honor to supplement this brief report by a more extended review as soon as definite particulars are received.

BEN. F. PEIXOTTO,  
Consul.

UNITED STATES CONSULATE,  
Lyons, June 16, 1881.

## THE CURRANT CROP OF GREECE.

REPORT BY CONSUL HANCOCK, OF PATRAS.

The result of last year's crop of currants being now definitely ascertained, I have the honor to transmit you herewith a short report showing the quantity produced, the produce of each district, the ports from which exported, under what flag shipped, to where shipped, bi-monthly average rates of freight, and the bi-monthly average of prices since the commencement of the season, which may possibly prove interesting to merchants trading in this article.

E. HANCOCK,  
Consul.

UNITED STATES CONSULATE,  
Patras, May 28, 1881.

*Bi-monthly average price per hundredweight, free on board.*

Dates.	Nauplia.		Gulf.		Vostizza.		Patras.		Misolonghi and Onatolico.	
1880.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
August 14 .....										
August 15 to 31 .....			21 6 to 17 0		22 0 to 21 0		20 6 to 17 0		16 0 to 15 0	
September 1 to 15 .....			21 6 to 22 0		21 0 to 23 0		15 6 to 16 6		15 6 to 16 3	
September 16 to 30 .....			21 6 to 22 6		23 0 to 25 6		16 6 to 23 0		16 6 to 17 6	
October 1 to 15 .....			22 6 to 23 6		22 0 to 26 0		20 6 to 22 6		18 6 to 19 9	
October 16 to 21 .....	21 0 to 21 6		21 6 to 23 0				21 0 to 25 0		18 6 to 19 6	
November 1 to 15 .....									19 0 to 19 3	
November 16 to 30 .....			21 0 to 21 6				20 6 to 22 6		19 0 to 19 6	
December 1 to 15 .....										
December 16 to 31 .....										
1881.										
December 1 to January 15 .....										
January 16 to 31 .....										
February 1 to February 15 .....										
February 16 to 28 .....										
March 1 to 15 .....										
March 16 to 31 .....										
April 1 to 15 .....							21 0			

  

Dates.	Gastuni, Pyrgos, and Olympia.		Filintra, Gargaglinno, &c.		Calamata, Navarino, &c.		Cephalonia.		Zante.	
1880.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
August 14 .....				20 0		19 0				
August 15 to 31 .....			17 0 to 16 0		15 6 to 15 3					
September 1 to 15 .....	12 9 to 16 9		16 0 to 17 6		14 0 to 15 6		13 0 to 16 0			
September 16 to 30 .....	17 0 to 19 8		17 0 to 18 0		16 6 to 18 0		14 0 to 19 0		19 0 to 21 0	
October 1 to 15 .....	18 6 to 19 6		18 3 to 19 9		17 3 to 18 0		17 0 to 20 0		20 0 to 20 6	
October 16 to 31 .....	18 6 to 19 0		19 0 to 20 6		18 0 to 18 6		20 0 to 20 6		20 9 to 21 0	
November 1 to 15 .....	18 6 to 19 6		19 3 to 20 6		18 0 to 19 6		20 3 to 20 6		20 6 to 21 0	
November 16 to 30 .....	19 6 to 20 0		19 6 to 20 0		18 3 to 18 6		19 3 to 19 9			
December 1 to 15 .....	19 3 to 19 6								21 0 to 21 6	
December 16 to 31 .....										
1881.										
December 1 to January 15 .....	19 0 to 19 3		19 0 to 19 6						20 6 to 21 6	
January 16 to 31 .....	18 6 to 19 0		19 0 to 19 6		18 3 to 19 0		17 3 to 18 0			
February 1 to February 15 .....		19 0		19 6			18 0 to 18 3		20 3 to 20 6	
February 16 to 28 .....	19 0 to 19 3								20 0 to 21 0	
March 1 to 15 .....	18 9 to 19 6		19 6 to 20 6							
March 16 to 31 .....	19 6 to 19 9									
April 1 to 15 .....										

*Currants produced in Greece—Crop 1880.*

	Tons.
Morea crop shipped up to May 20, 1881 .....	79,819
Cephalonia crop shipped up to May 20, 1881 .....	7,104
Zante, crop shipped up to May 20, 1881 .....	4,950
<b>Total</b> .....	<b>91,873</b>
Unshipped at Patras .....	80
Unshipped at Calamata .....	367
Unshipped at Filiatra .....	80
<b>Aggregate</b> .....	<b>92,400</b>

*Quantity produced by the different districts.*

	Pounds.	Tons.
Nauplia .....	953,055	
Gulf .....	10,095,168	
Vostizza .....	15,998,166	
Patras .....	21,514,785	
Missolonghi and Anatolico .....	2,703,092	
Gastuni, Pyrgos, Olympia .....	56,139,778	
Filiatra, Gargagliano, &c .....	31,355,654	
Calamata, Navarino, &c .....	31,521,980	
		170,281,678 = 79,819
Cephalonia, including Ithaca and St. Maura .....		7,104
Zante .....		4,950
<b>Total</b> .....		<b>91,873</b>

*Ports from which exported.*

	Tons.
Patras .....	35,091
Catacolo .....	20,479
Cephalonia .....	9,035
Calamata .....	8,792
Zante .....	8,355
Vostizza .....	7,500
Corone .....	1,257
Clarenza .....	918
Nauplia .....	446
<b>Total</b> .....	<b>91,873</b>

*Quantity shipped and nationality of vessels.*

Flag.	Steam-ships.	Sailing vessels.	Total.
	Tons.	Tons.	Tons.
English .....	64,858	2,933	67,791
Dutch .....	5,268		5,268
Italian .....	3,016	1,190	4,206
French .....	2,517		2,517
Norwegian .....	1,090		1,090
Austrian .....	395	330	725
Greek .....		10,276	10,276
<b>Totals</b> .....	<b>77,144</b>	<b>14,729</b>	<b>91,873</b>

*List of markets.*

	Tons.
United Kingdom .....	50,413
France .....	20,703
North of Europe .....	8,410
United States .....	8,065
Trieste .....	2,210
Russia .....	721
Canada .....	1,351
<b>Total</b> .....	<b>91,873</b>

*Bi-monthly average rates of freight.*

Date.	Per ton of 20 cents.			Per ton of 1,000 kilograms.		
				South of France.		North of France.
	London.	Liverpool.	New York.	Per steamer.	Per sailer.	Per sailer.
Aug. 16 to 31.	35s., 30s. 20s., 15s., and 10 per cent.	25s., 15s., and 10 per cent.	.....	.....	.....	.....
Sept. 1 to 15 .	15s., 20s., 22s. 6d., and 10 per cent.	15s., 17s. 6d., 20s., and 10 per cent.	25s., and 10 per cent.	.....	.....	.....
Sept. 16 to 30.	20s., 22s. 6d., 17s. 6d., and 10 per cent.	17s. 6d., 15s., and 10 per cent.	25s. 6d., and 10 per cent.	22½ francs and 5 per cent.	.....	.....
Oct. 1 to 15 ..	15s., 17s. 6d., and 10 per cent.	15s., 17s. 6d., 12s. 6d., and 10 per cent.	.....	20. 22 francs and 5 per cent.	.....	.....
Oct. 16 to 31 .	17s. 6d., 20s., 25s., and 10 per cent.	17s. 6d., 20s., 27s. 6d., and 10 per cent.	22s. 6d., and 10 per cent.	20. 22½ francs and 5 per cent.	.....	20, 22 francs and 5 per cent.
Nov. 1 to 15..	27s. 6d., 30s., 25s., and 10 per cent.	27s. 6d., 30s., and 10 per cent.	.....	20. 22 francs and 5 per cent.	16. 18 francs and 5 per cent.	25 francs and 5 per cent.
Nov. 16 to 30..	25s., and 10 per cent.	25s. 6d., and 10 per cent.	.....	.....	16. 17 francs and 5 per cent.	25 francs and 5 per cent.
Dec. 1 to 15 ..	.....	25s., and 10 per cent.	.....	.....	20 francs and 5 per cent.	25 francs and 5 per cent.
Dec. 16 to 31..	17s. 6d., and 10 per cent.	17s. 6d., and 10 per cent.	.....	.....	18. 17 francs and 5 per cent.	.....

**NEW ZEALAND FLAX.***REPORT BY CONSUL GRIFFIN, OF AUCKLAND.*

New Zealand flax (*Phormium tenax*) is by far the most valuable fibrous plant indigenous to this colony. It has been an article of export ever since 1809.

The attention of Europeans was first directed to it by the great navigator, Captain Cook, who described it as something superior to either flax or hemp. The natives, or Maories, have for many years used it for binding together the frame-work of their houses, and for making clothing, baskets, fine mats, fishing nets and lines, and sails for their boats and canoes. The name *Phormium tenax* is derived from the Greek word *Phornos* (a basket), and *tenax* (streng h). It belongs to the libiaceous family of plants, a species of plants whose history can be traced from the earliest ages. It is mentioned in the book of Exodus as one of the productions of Egypt in the time of the Pharaohs; and it has been ascertained that the cloth in which the Egyptians enfolded their mummies was made of this plant. Herodotus frequently refers to it, and mention is also made of it in the New Testament. Our Savior once selected one of the flowers of the *Libium chalcedonicum* as an emblem of beauty.

*Phormium tenax* is sometimes called the flax lily. The leaf varies in size from 3 to 14 feet in length, and from ½ inch to 5 inches in breadth at the widest part. It grows in bunches or groups of plants; each shoot has five leaves. On an average, about ten of these shoots form a bunch. The leaves are perennial, hard, and sword shaped, with a stalk.

rising 5 or 6 feet above them bearing a profusion of yellow and sometimes red flowers, followed by triangular seed vessels filled with flat and thin black shining seed. The plant attains its full growth in three years, when the leaves generally split at the end, and it first comes into flower. It is said that in rich soil the flower rises to a height of 20 feet.

The leaves are smaller in structure than those of European flax and hemp plants, being composed of cellular trusses running the whole length of the leaf, incased in a green substance. The trusses consist of two parts, wood and bast, the latter forming the fiber so highly prized. The *fibro vascular* bundles compose the inner bark of the plant, and serve to circulate the juices which are taken from the soil by the roots. They consist of exceedingly fine threads, one lapping over the other in such a manner as to give a free circulation throughout the leaf. The plant is indigenous only to New Zealand and Norfolk Island, although it has been transplanted in India and other countries, and is said to grow on the Pacific slope of the United States. It grows best in rich, moist, and well-drained ground. It reaches the greatest size on the banks of running streams.

When the leaves are full grown, the natives gather them when green and separate the fibers. They scrape the leaves with a shell, and then divide them with a comb. They are then put in the sun to dry, and when dry are perfectly white, soft, and silky to the touch.

It takes but little time to prepare the fiber; the plant may be shorn of its leaves in the morning, and before the sun is set the fibers are ready for weaving into cloth. The natives produce about 1 ton of fiber out of 4½ tons of green leaves. A full-grown plant will produce on an average about 36 leaves, besides offshoots from the roots, and it takes about six leaves to yield one ounce of fiber. At this estimate an acre of ground, planted 3 feet apart, would yield about 16 cwt. of fiber. When cultivated, the yield is about 2½ tons per acre.

#### DIFFERENT VARIETIES OF PHORMIUM TENAX.

The list of names of the different varieties of *Phormium tenax* distinguished by the natives is a very long one. It embraces *aonga*, a variegated flax described by Bishop Selwin; *atewhiki*, a very white fiber used for making fine mats and garments—the leaf is narrow with a reddish tinge, edge and keel narrow, bright scarlet lines; *sapoto*, cultivated at Coromandel, Kawhia, and Waikata—glossy leaves, rather red at the edge, has a general orange green appearance at a distance; *sarariki*, a species of very fine and soft texture used for making ornamented mats, the leaves tapering, of a dull olive green, lighter on the other side, dark red keel and edge and a keel on the upper side, gradually shaded away, forming a dark colored band one-eighth to three-eighths of an inch broad; about 2 or 3 inches of the point of the leaves are of the same dark color.

Two varieties of *Phormium tenax* are described in the New Zealand flora. Dr. Hochsetter makes the following classification:

*Sihori*, a cultivated kind; *suhari*, swamp flax; and *wharariki*, hill flax. The first named, *sihori*, is regarded as the best variety; it is used only for the finest work by the Maories; it seldom grows to a greater height than 5 feet. *Suhara*, or swamp flax, grows to a height of from 10 to 12 feet; it bears a red flower about half an inch longer than the *sihori*; the seed-pods are also larger, and the scape is of a dark red color. This flax may be distinguished from the other species by its bright color, sturdiness, and the nature of its fiber. *Wharariki*, or hill flax, is said to possess but a small proportion of fiber, and that of a very coarse kind.

It is said to be cultivated in the coldest parts of the South Island, but it does not appear to be used for manufacturing purposes.

#### DIFFICULTIES IN THE PREPARATION OF THE FIBER.

The greatest difficulty in the preparation of the fiber of *Phormium tenax* is to do away with the gummy or mucilaginous products found in the leaf. Captain Hutton is of the opinion that what is ordinarily spoken of as the gum is, in reality, at least three different products, viz, 1st, the gum on the outside of the lower part of the leaf; 2d, the bitter principle and mucilage contained in the cells of the leaf; 3d, the cement that binds the ultimate fibers together into bundles. He found, while experimenting, that the gum softens, but does not dissolve in cold water, and that it readily dissolves in boiling water. The bitter principle is easily overcome by cold water.

The cement dissolves in boiling water, and more quickly in alkalies. Acids which dissolve the gum have no effect upon the cement. Hutton says:

The strength of the fibrous bundles depends entirely upon the cement that holds the ultimate fibers together; and if this is dissolved either by hot water or alkali, the whole would separate into a mass of fluff, with no coherence or strength.

It appears from a report on the chemistry of *phormium tenax*, by Prof. A. H. Church, that the fiber contains much matter soluble in water, or liable to change. This accounts for the decay of rope made with this material. Professor Church says that the use of a mixture of lubricating or machinery paraffine oil with wood-tar seems to prevent the entrance of sea-water and the proneness to change in phormium fiber. He suggests that the fiber should be immersed in sulphuric acid of the consistency of that used in the manufacture of vegetable parchment for the purpose of toughening and strengthening it. Professor Church is opposed to the use of alkaline matters at a high temperature in the treatment of the fiber, from the fact that it tends to destroy the oil and otherwise injure the fiber. He does not think that the ultimate fibers are held together by any cement, but by their cell walls.

#### STRENGTH OF NEW ZEALAND FLAX.

New Zealand flax is generally supposed to be the strongest fiber in the world, but such is not the case. Recent experiments with testing machines show that while it is more than double the strength of ordinary hemp and flax it is not as strong as silk.

I give below a table furnished me by Mr. S. Cheeseman, of the New Zealand Institute, showing the comparative strength of various kinds of fibers.

Table showing the strength of various fibers.

	Pounds.
Silk will bear a strain of .....	34
<i>Phormium tenax</i> , a strain of .....	23 $\frac{7}{16}$
Russian hemp, a strain of .....	16 $\frac{3}{4}$
Common flax, a strain of .....	11 $\frac{1}{4}$
<i>Agave americana</i> , a strain of .....	7

This table does not vary much from that given by Professor Lindley, which is as follows:

	Pounds.
Silk will bear a strain of .....	34
<i>Phormium tenax</i> , a strain of .....	23
European hemp, a strain of .....	16
European flax, a strain of .....	11

EXPORT OF FLAX.

In 1837 there was exported from New Zealand 1,062 tons of *phormium tenax*, the value of which was \$106,200. In 1864 the export increased to 2,228 tons, with a value of \$302,950. The largest export occurred in the year 1873, when the quantity was 6,454 tons and the value \$718,975.

I give below a table showing the quantity and value of flax exported from New Zealand for each year since 1869 :

Table showing the quantity and value of *Phormium tenax* exported from the various ports of New Zealand for each year from 1869 to 1880, inclusive.

Years.	Quantity.	Value.
	<i>Tons.</i>	
1869 .....		
1870 .....		
1871 .....	4, 248	\$453, 055 00
1872 .....	3, 987	497, 025 00
1873 .....	6, 454	718, 975 00
1874 .....	2, 038	188, 450 00
1875 .....	639	58, 710 00
1876 .....	897	91, 425 00
1877 .....	1, 053	94, 130 00
1878 .....	622	53, 331 00
1879 .....	445	39, 370 00
1880 .....	894	78, 085 00

FLAX-MILLS.

The latest complete returns I have of the number of flax-mills in New Zealand is for the year 1878. During that year most of the mills were worked for only a portion of the year. The industry, owing to the low price realized for dressed flax, was in a declining state. I append hereto a table showing the number of flax-mills in operation during the year ending March, 1878, with the number of machines, the power and number of hands employed, and the quantity of flax manufactured during the year.

Provincial districts.	Number of mills.	Number of machines.	Amount of horse power.	Hands employed.	Quantity in tons manufactured.
Auckland .....	19	25	134	172	642
Saranaki .....					
Wellington .....	1	1	14	4	10
Hawke's Bay .....					
Marlborough .....	5	6	45	36	297
Nelson .....	1	1	30	12	60
Westland .....					
Canterbury .....	2	4	9	28	165
Otago .....	3	3	19	10	16
Total .....	31	40	251	262	1, 190

It will be seen from this table that Auckland has a larger number of flax-mills than all the other provincial districts of the colony put together. I am informed by Mr. J. M. King, who is now engaged in compiling the census returns of Auckland for the year ending April,

1881, that the returns indicate a more prosperous condition of the flax-mills than the colony has enjoyed since 1874, and that the number of mills and hands employed therein are largely in excess of those of 1880. These mills are used principally for dressing the flax for rope-making.

I learn from the juross commissioners' report on flax that the green leaves are stripped by revolving rollers with projecting beaters traveling at a high rate of speed, which crush the epidermis against a fixed plate, so set as to allow room for the fiber to remain intact. The fiber, thus freed from the leaf of the plant, is washed by various methods, put on the ground or on lines to dry and bleach, finished by an arm or barrel scutch, and, when boiled, is ready for market.

All the machines used are identical in principle and vary only in the details by which the principle is carried out. This principle is, that the leaf is held between horizontal feed-rollers, revolving at a certain speed, while, as the leaf passes out from them, a drum armed in its circumference with iron beaters, and revolving more rapidly than the feed-rollers, strips the epidermis and tissues away from the fiber, means being provided for adjusting the beating drum to a proper distance from the roller or bar against which the phormium leaf is stripped, so that the leaf may neither on the one hand pass through without being crushed, nor, on the other, have the fibers cut.

#### PREPARATION OF THE FIBER BY THE NATIVES.

The method of preparing the fiber by machinery is certainly a great improvement over that of the Maoris because the waste is nothing like so great. Indeed the Maoris do not obtain from each leaf one-fourth of the quantity that would be secured in machine-dressing. The natives cut off the leaf about 6 inches below the point where the two blades adhere together and reject the colored edges; they also take much time and pains in preparing the leaf, often soaking it four or five days in running water and then beat it with a stone or mallet. This process is repeated over and over again for four or five weeks. They cannot be made to understand the value of time. It is certain, however, that the fiber dressed by the natives is far more valuable and beautiful than that prepared by machinery.

#### COMPETING FIBERS.

The principal competing fiber with *Phormium tenax* is Manila hemp, of which such vast quantities are used in the United States. Manila hemp is a native of the Philippine Islands. It is made from a species of plantain called *Musa textiles*. It is planted generally on the slopes of hills, and requires shade and plenty of moisture. The trees are planted about 8 feet apart, and are cut down at the end of the third year and made into fiber. A full-grown tree will yield about 1½ pounds of hemp.

It does not appear that machinery has ever been used successfully in its manufacture, although many inventions have been made for the purpose, but the hemp for the most part continues to be produced by manual labor.

The process of manufacture is described as follows: The tree is cut down and stripped of its linings; these are then cut into pieces 3 or 4 inches wide, after which they are drawn underneath an instrument resembling a saw fixed in a block of wood. The fleshy part of the cortex is scraped off, and the fiber alone remains, which is then placed in the sun to dry. Two persons one engaged in cutting down the trees and stripping them and the other in extracting the fiber, can work up about 25

pounds of clean hemp in the course of one day. The greatest objection to rope made of New Zealand flax is that it becomes unfit for use after it is once wet, although there is no doubt that it will last longer than any other kind if kept dry. On the other hand, rope made from Manila hemp is actually improved by getting wet.

#### NEW ZEALAND FLAX IN THE AZORES ISLANDS.

*Phormium tenax*, I learn, is now being cultivated extensively in the Azores Islands. A company has been established there composed of two Englishmen and two Portuguese. One of the latter is stated to be the holder of a concession from the government of a monopoly for the manufacture of this article throughout Portugal and all Portuguese possessions, which concession the company are to buy of him for £15,000 in shares, being one-half the nominal capital of the company, the vendor agreeing not to receive any dividend until the other 15,000 shares shall have received 6 per cent.

#### CULTIVATION OF FLAX IN NEW ZEALAND.

It is more than probable that the cultivation of *Phormium tenax* in New Zealand will soon become a profitable industry. The rapid spread of colonization and the alienation of the waste lands of the crown to private proprietors have very much narrowed the source of supply of wild flax which principally grows most luxuriantly in soil that is selected by the settlers for agricultural purposes. Of course as the stock of wild flax becomes scarce the necessity for cultivating the plant becomes greater. Experience proves that the wild flax will soon become insufficient for the demand, and due consideration must be given to the fact that flax, like nearly all other plants, can be improved by cultivation.

#### EXPORT OF FLAX TO THE UNITED STATES.

Very little New Zealand flax is shipped direct to the United States. What reaches there generally goes by way of London. There was but one small direct shipment to America from Auckland in 1879, and none at all in the year 1880. The duty charged upon the imports of New Zealand flax into the United States is only \$5 per ton, and ought not to interfere materially with its shipment to America. It may be, however, that it cannot compete successfully with Manila or some of the various kinds of hemp grown in the United States.\*

G. W. GRIFFIN,  
Consul.

UNITED STATES CONSULATE,  
Auckland, New Zealand, June 15, 1881.

## PRODUCTION OF GOLD AND SILVER DURING THE LAST FOUR CENTURIES.

\* REPORT BY CONSUL PEIXOTTO, OF LYONS, FRANCE.

In view of the monetary conference at Paris, and the interest which the question possesses, I have the honor to present a record of the production of both of the precious metals in the more civilized portions of the world during nearly the last four hundred years.

\* I have been aided in the preparation of this report by the able and scholarly journalist, Thos. W. Leys, esq., of Auckland, New Zealand.—G. W. G.

The tables herewith inclosed give in a condensed form this production. The weights of the precious metals are given throughout in pounds avoirdupois, as more readily intelligible than the troy weight.

I am indebted to the labors of Dr. Soetbeen, from a recent publication of that eminent writer, and to the London Economist, for the basis on which the principal part of these tables have been constructed :

1. The first table presents the information, as it will be observed, according to the countries which were the principal producers of the precious metals from 1493 to 1875.

2. The second table, which is the more important, divides the production of gold and silver from 1493 to 1880 into groups of years. Columns of proportional figures show the proportional production of both the precious metals in each group, and a column also gives the rates of value between silver and gold. An epitome of the history of the whole question is thus presented.

3. The third table gives further details of the more recent production of the precious metals, *i. e.*, from 1876 to 1880.

The fluctuations in the production of the precious metals, as shown in table 2, are very remarkable. In the earliest group gold formed as much as 11 per cent. of the whole. The proportion rapidly falls till, a couple of centuries since, the proportion of the more valuable of the precious metals was no more than 2 per cent. of the whole.

No group of years since showed a higher proportion than 4 per cent. till 1841 was reached, when the increased supply from Russia brought the proportion up to 7 per cent. By 1851 the modern production of gold was fully developed.

Between 1841 and 1880, that is to say during the last 40 years, something like three-fifths of the known supply of gold obtained during the period of nearly four centuries under consideration was poured into the market. Nearly one quarter of the silver produced was obtained during the same time. If to this is added the effect of the demonetization of silver in Germany, which, as far as the *market* was concerned, was equal to fresh production, about one-third of the known supply of silver during the period of nearly four centuries was brought forward during the last 40 years.

Commenting on this the Economist says:

The relative value of silver to gold, as deduced from the proportion of the two metals, was 1 to 8 from 1493 to 1580; 1 to 49 only sixty years later; 1 to 5, say from 1856 to 1860; on an average during the whole period 1 to 19; at the present time it is about 1 to 11½.

The mint proportion of 1 to 15½ in France was laid down by the royal declaration of 1785, at which time the market value appears to have been rather less than 1 to 15.

Examined in this manner, the evidence at first sight appears somewhat conflicting.

The influence of the French mint arrangements since the commencement of the century, which, as it has been seen, date back even somewhat earlier, is often appealed to as having fixed the proportionate value while they lasted. That they had a great force in steadying the market price of the two precious metals cannot be doubted. A great demand, practically it may be said coextensive with supply, cannot be shut off without a great falling off in the market value following. But one hundred and fifty years earlier the same ratio appears to have been nearly attained, and such fluctuations as existed in the interval, before the French mint arrangements were established, were favorable to silver rather than otherwise, though the production of silver preponderated far more at that date over the production of gold than it has done since.

It was the pressure of the German silver on the market, coupled with the removal of the demand by the Latin Union, to which the ratio of value between silver and gold from 1876 to 1880 is to be attributed, realizing thus what Mill has said: "In no commodity is it the quantity in existence, *but the quantity offered for sale*, that determines the value."

The Economist believes that fresh influences are now arising and that a demand, such as India has provided for coinage purposes during the last three years of some £10,000,000 a year, cannot be long before it produces a permanent impression on the market for silver, now that there is a prospect of the German supply being cut off.

Although the work of Dr. Soetbeen and the article of the London Economist may have already met the attention of the Department, I have thought there could be no harm in referring to and communicating the same.

BENJ. F. PEIXOTTO,  
Consul.

UNITED STATES CONSULATE,  
Lyons, June 16, 1881.

TABLE 1.—Statement of the total production of precious metals from 1493 to 1875, according to weight.

[Converting kilograms into pounds avoirdupois, as 2.2 kilograms = 1 pound.]

Countries.	Silver.	Gold.
	<i>Pounds.</i>	<i>Pounds.</i>
Germany .....	17,390,802	.....
Austro-Hungary.....	17,094,297	1,013,430
Various European countries.....	16,240,400	.....
Russian Empire .....	5,343,608	2,274,041
Africa .....	.....	1,609,520
Mexico .....	167,651,880	583,088
New Granada.....	.....	2,671,900
Peru .....	68,688,400	359,810
Potosi (Bolivia) .....	28,978,720	646,800
Chili .....	5,739,800	579,920
Brazil .....	.....	2,281,510
United States .....	11,597,300	4,457,420
Australia .....	.....	3,986,400
Various countries.....	4,400,000	333,520
Total .....	397,125,267	20,797,359

TABLE 2.—Proportion of production of gold and silver from 1493 to 1880.

Production.	Number of years.	Silver.	Proportion of silver to total of precious metals.	Gold.	Proportion of gold to total of precious metals.	Total weight of precious metals, silver and gold.	Year.	Average ratio of value of silver to gold for each period.
		<i>Pounds.</i>		<i>Pounds.</i>		<i>Pounds.</i>		
1493-1520.....	28	2,895,200	89	357,280	11	8,252,656	1493-1520	10.5 to 11.1
1521-1544.....	24	4,762,560	93	378,048	7	5,140,608	1521-1544	11.25
1545-1560.....	16	10,968,320	97	299,552	3	11,267,872	1545-1560	11.30
1561-1580.....	20	13,178,000	98	300,960	2	13,478,960	1561-1580	11.50
1581-1600.....	20	18,431,600	98	324,720	2	18,756,320	1581-1600	12.1
1601-1620.....	20	18,607,600	98	374,880	2	18,982,480	1601-1620	12.5
1621-1640.....	20	17,318,400	98	365,200	2	17,683,600	1621-1640	14.0
1641-1660.....	20	16,117,200	98	385,880	2	16,503,080	1641-1660	14.50
1660-1680.....	20	14,628,000	97	407,440	3	15,235,440	1661-1680	15.0
1681-1700.....	20	15,043,600	97	473,660	3	15,517,260	1681-1700	14.96
1701-1720.....	20	15,646,400	97	564,080	3	16,210,480	1701-1720	15.21
1721-1740.....	20	18,972,800	96	839,520	4	19,812,320	1721-1740	14.71
1741-1760.....	20	23,458,380	96	1,082,840	4	24,551,220	1741-1760	14.71
1761-1780.....	20	28,720,560	97	911,020	3	29,631,580	1761-1780	14.64
1781-1800.....	20	38,678,640	98	782,760	2	39,461,400	1781-1800	14.76
1801-1810.....	10	19,671,300	98	391,116	2	20,062,416	1801-1810	15.42 to 15.61
1811-1820.....	10	11,896,940	98	251,790	2	12,148,730	1811-1820	15.54
1821-1830.....	10	10,132,320	97	312,752	3	10,445,072	1821-1830	15.80
1831-1840.....	10	13,121,900	97	446,358	3	13,568,258	1831-1840	15.67
1841-1850.....	10	17,169,130	93	1,204,698	7	18,373,828	1841-1850	15.75 to 15.60
1851-1855.....	5	9,747,265	82	2,172,663	18	11,919,930	1851-1855	15.42
1856-1860.....	5	9,954,890	81	2,266,638	19	12,221,528	1856-1860	15.30
1861-1865.....	5	12,112,650	86	2,036,353	14	14,149,003	1861-1865	15.36
1866-1870.....	5	14,729,935	87	2,110,900	13	16,840,835	1866-1870	15.55
1871-1875.....	5	21,663,675	92	1,877,425	8	23,541,100	1871-1875	15.98
1876-1880.....	5	21,756,250	92	1,668,750	8	23,425,000	1876-1880	18.20
	388	419,583,515	95	22,587,285	5	442,170,976		

NOTE.—The average price of silver in London for 1876-1880 may be taken as 52½d. the ounce, and the value for that period is calculated at that ratio.

TABLE 3.—*Estimate of production of gold from 1876 to 1880.*

Countries.	1876.	1877.	1878.	1879.	1880.
United States ..... dollars..	45,745,100	44,771,800	43,798,500	38,932,000	38,932,000
Do ..... £ sterling..	9,400,000	9,200,000	9,000,000	8,000,000	8,000,000
Australia ..... dollars..	36,498,750	34,065,500	29,199,000	26,765,750	29,199,000
Do ..... £ sterling..	7,500,000	7,000,000	6,000,000	5,500,000	6,000,000
Other countries ..... dollars..	29,199,000	29,199,000	29,199,000	29,199,000	29,199,000
Do ..... £ sterling..	6,000,000	6,000,000	6,000,000	6,000,000	6,000,000
Total gold in ..... dollars..	111,442,850	108,036,800	102,196,500	94,896,750	97,330,000
Total gold in ..... £ sterling..	22,900,000	22,200,000	21,000,000	19,500,000	20,000,000
Proportion of weight of gold to produc- tion of precious metals:					
Say ..... pounds..	359,375	346,875	343,750	306,250	312,500
Say ..... per cent..	8½	7½	8	7	7

## PRODUCTION OF SILVER.

United States ..... dollars..	38,932,000	44,771,800	36,498,750	36,498,750	37,472,050
Do ..... £ sterling..	8,000,000	9,200,000	7,500,000	7,500,000	7,700,000
Mexico and South America ..... dollars..	26,765,750	29,199,000	26,765,750	24,332,500	24,332,500
Do ..... £ sterling..	5,500,000	6,000,000	5,500,000	5,000,000	5,000,000
Other countries ..... dollars..	9,733,000	9,733,000	9,733,000	9,733,000	9,733,000
Do ..... £ sterling..	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Total silver in ..... dollars..	75,430,750	83,703,800	72,997,500	70,564,250	71,537,550
Total silver in ..... £ sterling..	15,500,000	17,200,000	15,000,000	14,500,000	14,700,000
Say ..... pounds..	4,356,250	4,837,500	4,250,000	4,125,000	4,187,500
Say ..... per cent..	91½	92½	92	93	93
Total gold and silver in ..... dollars..	186,973,600	191,740,100	175,194,000	165,461,000	168,867,550
Total gold and silver in ..... £ sterling..	38,400,000	39,400,000	36,000,000	34,000,000	34,700,000
Say ..... pounds..	4,715,625	5,184,375	4,593,750	4,431,250	4,500,000

## CONDITION OF SAN DOMINGO.

## REPORT BY CONSUL JONES, OF SAN DOMINGO.

I have the honor to transmit herewith a comparative summary of the principal articles of import and export between the port of San Domingo and the United States for the years ending June 30, 1880 and 1881.

It will be observed that the principal article of export to the United States, viz, sugar, shows a falling off to the extent of 1,514,264 pounds, and in value \$92,323.68.

This island, in common with most of the West India Islands, during the last half of the year 1880, suffered from an extraordinary and unprecedented drought, resulting in a large falling off of sirup. With an ordinary fall of rain and the increased plant of cane, the crop should have aggregated for export somewhere about 12,000,000 pounds, and in value would have summed up over half a million dollars. With ordinary weather for the balance of the year, and taking into consideration the increased acreage, I hope to be able in my next annual summary to report 15,000,000 pounds of sugar and 350,000 gallons of molasses exported to the United States, with an aggregate value of about \$700,000.

Sugar is undoubtedly going to be the great staple product of this country. Although yet small in quantity, it is gradually increasing; as, for example, the total value of sugar and molasses exported to the United States for the year ending June 30, 1876, amounted to only \$107,813.74, while for the year ending June 30, 1881, it amounted to the sum of \$465,001.19. These figures represent only the port of San Do-

mingo. Puerto Plata, Samana, and Agua are rapidly advancing in the same branch of industry.

During the present year, Mr. A. H. Crosby, an enterprising citizen of New York, visited the capital and secured a valuable concession for constructing a railroad from Samana to Santiago, a distance of about 100 miles, traversing the rich valley of the river Yuna and tapping the great tobacco-growing region of the republic. Mr. Crosby informs me the work will be commenced speedily and pushed to completion. The same gentleman erected the light-house and wharf at Puerto Plata, as well as the wharf in this city and the bridge over the Ogania River here. Another enterprising citizen of Boston has made application for a concession for a railroad from this city to Agua, a distance of some 90 miles, and he informs me the prospect is very flattering for obtaining it. Should either or both of these roads be built, it will be a grand thing for San Domingo, as they will open up to market a wilderness of hitherto inaccessible country, abounding in valuable dye woods, lignum vitæ, and mahogany, and easy communication with the interior, which can now only be reached on horses and pack-mules.

The people of this country, as a class, are very poor, lack enterprise and vim, and from necessity buy comparatively little. The stores are overstocked with merchandise, and for the present I am unable to point out any feasible way for increasing the trade with the United States.

PAUL JONES, *Consul*.

UNITED STATES CONSULATE,  
*San Domingo, July 15, 1881.*

## COMMERCE AND INDUSTRIES OF LEGHORN.

*REPORT BY CONSUL RICE, OF LEGHORN.*

The port of Leghorn, most important during the last two centuries as the only seaport of the Grand Duchies of Tuscany and Lucca, on the substitution of steam for sails as a motive power, was found to be deficient in size and especially in depth of water. The old Porto Mediceo, which had been sufficient for sailing vessels of small tonnage, could not accommodate the steamers which began to displace them. Steamers were consequently compelled to lie off on the Meloria Banks till the last grand duke caused the outer breakwater to be constructed, at an expense of \$1,200,000.

This breakwater is bow-shaped and some 1,100 yards from point to point, and covers in a considerable space of water from most winds, but not from all; consequently, though large steamers could lie there in safety, yet it was frequently impossible for them to load or discharge cargo in consequence of the heavy sea that got up during the prevalence of southwesterly gales.

On the union of Tuscany to the Kingdom of Italy, the government commenced deepening the inner harbor, but the work progressed slowly, from the fact of the bottom to be excavated consisting in alternate layers of mud, rock, sand, rock-gravel, &c.—the layers of rock varying from 1 foot to 6 feet in thickness. Explosives were used, but in consequence of the immediate vicinity of the city the charges were necessarily limited, the result being that the work was very costly.

In 1868 the Italian Government came to terms with an English contractor, Mr. George Furness, who was then carrying on the contract for

the dredging of Spezia Arsenal, to deepen parts of Leghorn Harbor; and later the municipality of Leghorn made a separate arrangement with him to increase the space so deepened. Mr. Furness, using a ram several tons in weight, acting vertically on a flat, and worked by steam machinery (the whole apparatus being the invention of Mr. W. R. Sanders, C. E., the engineer of the works), rendered the use of explosives unnecessary, and the breaking up of the rocky strata and subsequent dredging up of same possible at a moderate cost.

The contract of 1868 being for a portion of the harbor only, and taking ten years in its execution, the work having been so arranged, on its completion left the harbor as shallow as ever, save where here and there deep-water passages had been cut at a total expense of some \$800,000.

The size of steamers frequenting the port increasing more and more rapidly, the insufficiency of the works contracted for in 1868 was fully recognized before they were completed in 1878; and the government, seized with the importance of the subject in 1879, laid a bill before the Chamber of Deputies providing for the expenditure of the sum of \$950,000 to complete the port works. The sum was thus divided: \$446,000 to deepen the whole of the inner port to 7 meters, or about 22 feet 11 inches; \$34,000 to remove a shoal in the outer harbor to the depth of 7 meters; \$350,000 to construct a new breakwater from the shore to the south of the town to the old, now no longer used, light-house of the Vecchiaja; \$120,000 to lengthen the existing dry-dock so as to take in the largest ships, now compelled to dock at Marseilles.

This bill, urgent as it was, through continual ministerial crises, and from political, and possibly also financial, expediency, only passed the Chamber in the early part of June, 1881. It will doubtless pass the Senate this session, and by the end of the year it may be anticipated the works will be let by public auction and commenced. The works to be effected under this bill are colored in red in the plan.

The lengthening of the dry dock is to be completed in two years from the date of contract. The remaining works are to be completed by 1890. The payments being, as it is customary in Italy, spread over many years.

The patent of the ram being the property of Mr. Furness, it is to be anticipated that he will obtain the work.

I may here say that the thickness of the rock existing has been perfectly ascertained by the use of a steam-borer mounted on a flat, the perforations having been effected at intervals of 5 yards or so. The bank in the outer harbor has a great deal of rock in it; its removal will render the entry and exit from the harbor much easier than at present, and give a much larger and safer mooring space. The dredging in the inner harbor will be freer of rock than in those zones completed under the preceding contract. The dry dock extension is to be terminated in two years, the rest of the works in 1890.

#### HARVESTS.

I am happy to say that under this head my district is most fortunate this year. Bread, as eaten in the country, costs about 25 centimes a kilogram; it has rarely been so low since Italy has been a kingdom, and it has been nearly double that price frequently of late years. The partial abolition of the first tax of course has contributed in a small measure to this fall in prices.

I may here mention that cargoes of hard grain for the manufacture

of maccaroni are being imported from Bombay, probably in consequence of dearth in the Black Sea.

Wine promises well. I have heard of only two "suspicions" of phylloxera, but prompt eradication by fire of the particular spot affected has nipped the disease in the bud, if the malady really existed.

Olive oil promises excellently, and farmers reckon on a good year. The oil should also, commercially speaking, much improve in quality. The government imposed from March 1, last past, a customs duty of 14 francs per 100 kilograms, as against 6 francs previously on cotton-seed oil, and though, in anticipation, enormous stocks were laid in, unless some new element of adulteration be found, oil must improve in quality. I am sorry to say that this new duty was much objected to as "stifling trade," though at the same time it is but just to state that there are many firms who will not use any but pure oil for their business.

*Silk.*—This crop appears to promise abundantly, so much so that in many villages in the Lucca Valley the country people, rather than risk being out of pocket through the purchase of mulberry leaves, threw away their worms when half developed, saying satirically, "This year silk will cost less than cotton."

There has been some cattle plague in Elba and Southern Tuscany, sufficiently important in its nature to warrant the bills of health given to steamers bearing a visa to that effect, as "*Afta Epizootica*."

*Elba ore.*—The contract of Messrs. Holloway Bros., the English firm that purchased all the iron ore extracted by the Italian Government from the Elba mines, terminating, has not been renewed. A syndicate of Italian capitalists have assumed the working of the mine for three years, paying a royalty of \$1 a ton for all mineral extracted. This change will have the effect of causing either an advance in price of 2 francs, or a diminution in profits of such sum; the fact of Messrs. Holloway Bros. desisting from the competition of the later public auctions has its significance; it is, however, said that Messrs. Holloway enter the syndicate. It is to be anticipated that a lull may take place in export till the new lessees come to terms with the consumers on the basis of the increased prime cost of the ore.

#### EXCHANGES.

At the end of 1880 I had the honor to submit some remarks on this question. The abolition of the paper currency, first brought forward formerly by the finance minister, Maglianis, in October, 1880, the simple ventilation of which question had the effect of causing a fall in the premium on gold from 12 to less than 4 per cent., has now become all but an accomplished fact. All small notes of  $\frac{1}{2}$  franc, 1 franc, and 2 francs are to be called in from 1st proximo and replaced by silver, and early in the next month a 5 per cent. loan of about \$130,000,000 will be issued in London and Germany to supply the remaining metallic currency required; meanwhile authority has been taken by law to replace the present forced notes by others *payable in metal currency*.

The recent occupation of Tunis by the French, and some little political agitation in Italy consequent on same, has deferred the floating of this loan, which was to have been launched some weeks back. Naturally the future of Italian finance will much depend on the reception the loan meets with in England and Germany; but it is remarkable that till some days back the loan was expected to have been effected in Paris.

Exchanges have varied from 4 per cent. to  $\frac{3}{4}$  per cent. during the

past six months, and I learn that three months' bills on London were negotiated a few days since at 25.17 lira to the pound sterling.

#### JUTE INDUSTRY.

In June, 1880, a firm, trading under the form of Emanuel Balestrieri, commenced the manufacture of jute at Ponte Moriano, 6 miles above Lucca, drawing their supplies of the raw material from Calcutta; the machinery comprises 400 looms, which, working night and day, employ 1,800 workmen. The motive power is derived from the river Serchio, and is at present utilized to the extent of 500 horse power. Arrangements are, however, now being made to increase the hydraulic power to 600 horses. The production averages 24,000 meters of sack cloth per diem. Besides this, jute carpeting is being produced, and the owners, who are enterprising Genoese, are going to commence the weaving of ornamental upholsterers' materials, &c., so soon as the necessary machinery arrives from England, where all the machinery has been made.

I have not yet been able to visit the works, as the owners persistently refuse admission to all strangers. The site was formerly occupied by a small-arms factory, and is midway between Lucca and the baths of Lucca.

I shall keep this new and important industry in view, and inform you periodically of its progress.

#### AMERICAN GOODS.

In my consular capacity I have been applied to by many of my fellow-countrymen for information as to whether certain American inventions or productions could find a ready sale at Leghorn. To all these applications I have replied, giving what information I could procure, but I think it best, with the approval of the Department, to mention in this report that I take great interest in advancing and promoting our commercial relations with Italy, but I find both Italian and foreign traders doing business here are loth to order goods on the simple recommendation of circulars and newspaper advertisements; they would wish to see samples of such goods, in order to examine same and thereby appreciate the terms of purchase.

If American patents, such as machinery, musical instruments, &c., are the goods required, buyers naturally wish to have an opportunity of judging of them practically. To facilitate, therefore, the opening up of trade, I shall be happy to receive, at risk of senders, any such articles of merchandise, and will do my best to introduce them to the Italian public.

Should they meet with success, then Mr. Emilio Masi, my vice-consul, a gentleman long connected with this office, and with large business acquaintance, can act as agent for the proprietors.

Several of the largest merchants here have come to the conclusion that they can import all their cotton goods, such as sheetings, shirtings, cambric, &c., cheaper from the United States than England; and when once this is made evident it will be a large opening for our trade. Applications for the addresses of our larger exporters of cotton goods have been lately made to me.

WILLIAM T. RICE,  
*Consul.*

UNITED STATES CONSULATE,  
*Leghorn, June 30, 1881.*

SALT TRADE OF ANGUILLA.

REPORT BY CONSUL JACKSON, OF ANTIGUA.

I have the honor to forward, herewith inclosed, a statement compiled from the house of customs at Anguilla, showing quantity of salt shipped to and number of vessels loading for the United States during the period from July 27, 1868, to July 5, 1870.

The island of Anguilla is a dependency of this island, and situated about 100 miles to the north and west. It has a population of 3,000 souls, mainly employed in the production of salt, the process being the same as at Turk's Island.

Since 1870 the salt ponds, from a want of capital, fell into decay, but last year were revived, and now produce a large quantity of salt, the greater part of which is to be shipped to the United States. Two vessels are, at this moment, loading for that market. The size of the ponds is being augmented and considerable effort made for an increased production.

In view of all this, I consider it necessary that an agency be established there, subject to this consulate.

The means of communication are frequent through the regular mails to and from this port, and small vessels ply daily between the island mentioned and St. Christopher, and are in constant communication with this consulate.

CHESTER E. JACKSON,  
Consul.

UNITED STATES CONSULATE,  
Antigua, July 31, 1881.

Statement showing quantity of salt shipped from the island of Anguilla to the United States from July 27, 1868, to July 5, 1870.

	Names of vessels.	No. of bushels.
1868.		
July 27 .....	Laura Pride .....	3,474
August 31 .....	Union .....	2,112
September 10 .....	Harry & Aubrey .....	7,044
September 19 .....	Montezuma .....	6,027
October 26 .....	Laura Pride .....	3,288
November 5 .....	John Gibbons .....	6,981
November 12 .....	Sarah Hall .....	9,030
December 5 .....	Wilfred .....	2,394
December 14 .....	Laura Pride .....	3,030
December 28 .....	Lois .....	2,180
1869.		
January 4 .....	J. C. Hertz .....	3,912
January 6 .....	Golden City .....	3,432
January 11 .....	L. W. Eaton .....	6,637
January 30 .....	Frank Clark .....	11,568
February 10 .....	Restless .....	6,153
February 27 .....	Janette .....	1,377
March 8 .....	Comrade .....	4,317

Statement showing quantity of salt shipped from the island of Anguilla, &c.—Continued.

	Names of vessels.	No. of bushels.
1869.		
June 7 .....	Clara .....	13, 656
July 1 .....	Savannah .....	18, 975
July 10 .....	Arletta .....	13, 248
July 19 .....	Nancy Smith .....	16, 335
July 30 .....	Negretta .....	10, 422
August 13 .....	Eagle .....	8, 946
August 17 .....	Chillian Wallah .....	13, 152
August 19 .....	Lusetta .....	5, 100
August 23 .....	Norwester .....	4, 125
August 27 .....	Ben Borland .....	5, 487
August 30 .....	E. J. Knight .....	4, 875
September 6 .....	Wager .....	6, 381
September 17 .....	Eclipse .....	3, 222
October 15 .....	Janette .....	7, 020
1870.		
January 24 .....	Hatton Eaton .....	8, 920
February 18 .....	Marion .....	2, 259
March 25 .....	Athlete .....	7, 716
May 17 .....	Ida E. ....	2, 712
May 18 .....	Seven Brothers .....	2, 469
July 5 .....	New Zealand .....	4, 431
	Total number of bushels .....	241, 477
	Total number of vessels .....	37

## THE "SCHOOL FOR WOMAN'S WORK," AT REUTLINGEN, WURTTENBERG.

REPORT BY CONSUL CATLIN, OF STUTTGART.

From the annual report of the "School for Woman's Work," at Reutlingen, in this kingdom, for the year ending June 30, 1881, it appears that during the past school year the number of pupils who received instruction in the different branches was as follows:

Branches.	First quarter.	Second quarter.	Third quarter.	Fourth quarter.	Average.
Knitting .....	11	21	10	14	14
Plain sewing .....	37	30	34	31	33
Machine sewing .....	57	51	62	73	61
Dressmaking .....	58	65	65	66	63
Embroidery .....	21	18	19	29	22
Drawing and painting .....	6	2	4	1	3
Total .....	190	187	194	214	196

In addition to the above, pupils were taught in the optional branches as follows:

Branches.	First quarter.	Second quarter.	Third quarter.	Fourth quarter.	Average.
Ironing .....	27	26	29	40	31
Millinery .....	36	60	51	69	54
Bookkeeping .....	33	33	35	30	33
Lectures .....		100	90	100	96
Dancing .....		27	23	28	26

All of the more respectable classes of society furnished their quota to the list of pupils availing themselves of the advantages offered by this excellent institution, as is shown by the following classification:

Daughters of—	First quarter.	Second quarter.	Third quarter.	Fourth quarter.	Average.
Officials .....	28	24	21	20	23
Clergymen and schoolmasters .....	18	24	23	25	23
Merchants and manufacturers .....	68	58	65	74	66
Trades people .....	60	65	68	70	66
Military men and physicians .....	4	2	2	6	3
Farmers .....	6	7	6	10	7
Private individuals .....	4	5	7	6	6
Artists .....	2	2	2	3	2
Total .....	190	187	194	214	196

As showing that it is not by German patronage alone that the institution is supported, the following statement classifying the number of pupils by countries is of interest, viz:

Countries.	First quarter.	Second quarter.	Third quarter.	Fourth quarter.
Württemberg .....	131	130	133	150
Other German states .....	41	84	35	35
Switzerland .....	16	20	20	22
Austria .....	1	1	1	1
Greece .....			1	1
France .....			2	2
England .....				1
America .....		1	1	1
India .....	1	1	1	1
Total .....	190	187	194	214

The ages of the pupils were as follows :

Ages.	First quarter.	Second quarter.	Third quarter.	Fourth quarter.
Fourteen to sixteen years .....	84	38	41	63
Sixteen to eighteen years .....	60	91	89	84
Eighteen to twenty years .....	19	31	36	38
Over twenty years .....	18	27	28	29
Total .....	190	187	194	214

The growth of the school in popularity and usefulness is illustrated by the table appended herewith, showing the average annual attendance in the different branches for the past eleven years, viz:

School year.	Knitting.	Plain sewing.	Machine sewing.	Dressmaking.	Embroidery.
1870-'71 .....	1	15	9	10	.....
1871-'72 .....	3	22	16	16	5
1872-'73 .....	3	25	21	16	6
1873-'74 .....	6	29	32	30	9
1874-'75 .....	8	37	50	52	12
1875-'76 .....	9	42	65	53	14
1876-'77 .....	14	44	71	63	16
1877-'78 .....	12	40	64	74	16
1878-'79 .....	15	35	77	62	14
1879-'80 .....	12	31	65	66	17
1880-'81 .....	14	33	61	63	22

There are now employed in Germany and elsewhere 181 female teachers who have received their training from the Woman's Workschool at Reutlingen. Of these, 127 are engaged in other similar schools for woman's work, 27 at sewing schools, 1 at a housekeeping school, 16 at young ladies' boarding and day schools, and 10 have schools of their own.

Great pride and interest are felt by the people of Württemberg in the growth and development of this worthy enterprise. They point with pride to the fact that it has already furnished from among its graduates instructresses to classes in Basle and Zurich in Switzerland, Budapesth and Pressburg in Austro-Hungary, Helsingfors in Russia, Christiana in Norway, and Manchester in England.

GEORGE L. CATLIN,  
Consul.

UNITED STATES CONSULATE,  
Stuttgart, August 6, 1881.

## FOREIGN COMMERCE OF RUSSIA.

SIX STATISTICAL TABLES TRANSMITTED BY CONSUL-GENERAL STANTON, SHOWING RUSSIA'S CUSTOMS RECEIPTS, IMPORTS AND EXPORTS OF PRECIOUS METALS, GRAIN EXPORTS, FLAX SHIPMENTS, AND GENERAL LIST OF IMPORTS AND EXPORTS DURING THE FIRST FOUR MONTHS OF 1880 AND 1881.

### No. 1.

*Statement of the customs receipts of the Russian Empire to June 18 (30), 1881, and the imports and exports of precious metals.*

#### I. Duties:

	Roubles.
1. Cash:	
a. Silver roubles, 12,175,735; reduced to paper .....	18,263,603
b. Rouble credits .....	64,420
2. Securities:	
Silver roubles, 2,310,798; reduced to paper .....	3,466,197
II. Receipts from other sources .....	404,838
Total receipts silver roubles, 11,486,533; reduced to currency .....	22,199,058
Against, in 1880 .....	33,636,250
Against, in 1879 .....	30,956,913

### No. 2.

During the same period precious metals, in ingots and coins, imported were 2,233,039 roubles; exported, 14,427,048 roubles.

	Roubles.
Imported 1880 .....	3,220,228
Imported 1879 .....	4,859,485
Exported 1880 .....	8,688,488
Exported 1879 .....	2,448,798

## No. 3.

*Statement of Russia's grain export during the month of April in 1881 and 1880.*

Articles.	1881.	1880.
	<i>Tchetvierts.</i>	<i>Tchetvierts.</i>
Wheat.....	369,417	697,275
Rye.....	260,447	733,002
Barley.....	55,393	208,466
Maize.....	45,608	183,541
Pease.....	15,895	29,824
Oats.....	260,211	656,335
Groats.....	1,018	17,114
Flour.....	9,016	23,106
Other grains.....	12,276	70,295
Total.....	1,036,281	2,618,958

## No. 4.

## FLAX SHIPMENTS.

From the opening of navigation to the 15th (27th) of June the shipments of flax amounted in 1881 to 719,426 poods 2 pounds as compared with 720,389 poods 33 pounds in 1880.

## No. 5.

*Statement of Russia's foreign commerce during the first four months of 1880 and 1881.*

Articles.	Amount to April 30, 1880.	Amount to April 30, 1881.
Raw sugar.....poods..	423	.....
Refined sugar.....do....	61	2
Tea.....do....	204,872	71,989
Coffee.....do....	95,099	65,353
Oil.....do....	350,475	153,763
Wine, in casks.....do....	225,797	114,139
Wine, in bottles.....number..	61,747	38,826
Sparkling wines.....poods..	230,109	44,351
Salt.....do....	2,633,963	3,764,676
Herrings.....do....	901,353	1,199,759
Other kinds of fish.....do....	16,395	22,098
Tallow.....do....	113,926	23,836
Leaf tobacco.....do....	35,034	13,713
Cut tobacco and cigars.....do....	1,087	648
Raw cotton.....do....	1,647,011	2,135,255
Spun cotton.....do....	240,858	91,856
Indigo.....do....	18,230	28,378
Volatile illuminating oils.....do....	380,814	187,934
Crude castings.....do....	3,505,578	2,300,790
Iron: In bars, wrought iron.....do....	1,404,565	950,000
Scrap iron, &c.....do....	5	.....
Boiler metal, sheet iron, &c.....do....	548,602	362,908
Iron rails.....do....	88,323	9,838
Bessemer steel rails.....do....	1,036,934	97,461
Lead.....do....	64,526	76,705
Raw wool, undyed.....do....	148,189	85,772
Unspun wool, dyed.....do....	35,250	24,230
Artificial wool.....do....	5,852	1,853
Spun wool.....do....	95,575	60,509
Silk.....do....	10,885	8,998
Soda.....do....	262,693	116,276
Coals.....do....	22,003,472	21,274,218
Locomotives, engines, and parts thereof.....do....	692,861	118,675
Cotton tissues.....do....	80,336	22,815
Woolen tissues.....do....	44,161	24,074
Silk tissues.....do....	2,611	2,173
Linen tissues.....roubles..	580,311	372,274

## No. 6.

## EXPORTS.

Articles.	Amount to April 30, 1880.	Amount to April 30, 1881.
Wheat .....Tchetvierts..	1,467,854	1,125,289
Rye.....do ..	1,357,096	588,475
Barley.....do ..	435,231	128,988
Maize.....do.....	460,246	192,962
Pease.....do.....	78,610	46,838
Oats.....do.....	1,553,823	656,634
Groats.....do.....	35,692	3,392
Flour.....do.....	51,389	32,165
Other cereals.....do.....	255,330	112,206
Total.....do.....	5,695,271	2,886,950
Linseed and hempseed.....Tchetvierts..	218,130	141,030
Other oleaginous seeds.....do.....	141,509	60,471
Oil cake.....do.....	808,723	181,569
Butter.....do.....	29,432	8,451
Spirit of wine and brandy.....poods..	754,795	232,724
Spirit of wine and brandy.....degrees 89°..	193,256	27,711,374
Tobacco.....poods..	10,573	8,479
Raw sugar.....do.....	102,143	738
Refined sugar.....do.....	30,849	46,974
Horned cattle.....do.....	9,610	5,388
Sheep and lambs.....do.....	190,248	144,370
Horses.....do.....	9,191	8,084
Tallow.....do.....	87,033	43,426
Flax.....do.....	3,048,601	2,689,397
Flax-tow.....do.....	170,691	128,863
Hemp.....do.....	805,804	814,254
Hemp-tow.....do.....	24,568	17,144
Spun flax.....do.....	679	2,044
Spun hemp.....do.....	27,038	22,095
Leather:		
Undressed.....do.....	121,436	91,394
Dressed.....do.....	4,031	3,874
Bones.....do.....	5,226	4,919
Raw wools.....do.....	277,867	83,714
Bristles.....do.....	37,482	39,167
Potash.....do.....	881	12,992
Iron.....do.....	2,570,668	29,729
Rags.....do.....	230,754	140,600
Coarse linens.....archins..	102,000	106,880
Wood.....rubles..	2,825,668	1,362,431
Furs and skins.....poods..	30,546	18,328
Ropes.....do.....	29,938	27,909

EDGAR STANTON,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*St. Petersburg, July 15, 1881.*

## THE RESOURCES OF ANTIOQUIA, UNITED STATES OF COLOMBIA.

REPORT BY VICE-CONSULAR AGENT CASTRO, OF MEDELLIN, UNITED STATES OF  
COLOMBIA.

In compliance with your circular note of July 1, 1880, and in accordance with my communication of February 24 last, I submit the following report, which I fear is very defective, owing to the fact that the government of this State does not publish any statistics, and difficulties are great in the way of obtaining information either from officials or private individuals.

## STATE OF ANTIOQUIA.

The Federal Republic of the United States of Colombia is divided into nine States, among which Antioquia stands as one of the richest and most enterprising. It is bounded on the north by Bolivar, on the west by Cauca, on the south by Tolima and Cauca, and on the east by Boyacá and Santander.

The Magdalena River forms a natural boundary on the east and is the chief water-way. The other principal rivers are the Nare, the Cauca, and the Nechi. The leading commercial ports are, Nare on the Magdalena, Isalitas on the Nare, Zaragoz on the Nechi, Caceres on the Cauca, and Puerto Berrio on the Magdalena. This latter bids fair to be the most important of all when the railroad is completed.

Besides the large navigable rivers, the State of Antioquia is watered by many small streams which contribute largely to the fertility of the soil.

A range of the Central Colombian Andes (in two branches, eastern and western) crosses the territory of Antioquia from north to south. The interior of the State, especially in its few and narrow plains, is highly cultivated. But towards the west it becomes very marshy on account of the affluents of the Atrato River, which is now included in the State of Cauca, and which flows through the Gulf of Darien into the Atlantic Ocean. The climate is generally delightful except in the vicinity of the great rivers where the intense heat and miasmatic fevers check the increase of population. The woods abound in a great variety of birds, quadrupeds, and serpents, and the rivers are teeming with fish.

Agriculture, cattle-raising, and mining are the leading pursuits of the inhabitants. Agriculture hardly produces enough to satisfy the wants of the State. Grain is dear on account of the difficulties of transportation, the roads being generally very bad. The government has established large and sweeping imposts for the improvement of highways; but the money resulting therefrom is seldom successfully or judiciously expended. The want of roads greatly contributes to the isolation of Antioquia from other States. Indian corn, sugar, frijoles (a kind of bean) are the general food of the people. Cattle are abundant, and there are many fine salt springs, but in the towns near the Magdalena the inhabitants use sea salt, brought from the State of Bolivar. Mining is largely pursued in Antioquia, and the State possesses a vast source of wealth in its gold and silver mines, but from the want of capital very few are worked. All the mines are owned by the State, but grants are conceded on easy conditions, either to citizens or aliens, and the acquisition of a mine (1,800 meters in length and 5 kilometers square if it is a placer) is a very simple affair. There are other rich deposits of metals, but these are left unworked with the exception only of an iron field, of which I will treat in a future communication.

The chief articles of commerce are gold, silver, hides, coffee, and straw hats. The State of Antioquia has commercial intercourse with England, France, Germany, and the United States, but the trade with this latter is, however, very small. The Antioquians are robust, vigorous, laborious, and enterprising, but the want of capital and good roads prevent the successful development of their resources. The State government is sustained by indirect taxes, among the most productive of which are those levied on foreign merchandise, cattle, *aguardiente* (liquor), and wines. The population of the State, according to the official census, amounted, in 1843, to 189,534 inhabitants; in 1851 to 228,699; in 1859 to 303,325; and in 1869 to 365,974. Since the year 1869 no census of the people has been taken.

The State of Antioquia is divided, as to its interior administration, into nine departments, which are again subdivided into districts, as shown in the following table:

Departments.	Districts.	Populations.	Total populations of dep'ts.
Centro.....	Medellen.....	29,675	70,404
	Barbosa.....	4,896	
	Caldas.....	2,737	
	Copacabana.....	4,831	
	Envigado.....	5,735	
	Estrella.....	3,814	
	Jivadota.....	4,453	
	Itagui.....	5,772	
	San Pedro.....	4,788	
	St. Domingo.....	4,703	
Norte.....	Santa Rosa.....	8,130	44,594
	Angostura.....	4,814	
	Anori.....	4,124	
	Aznero.....	3,404	
	Cruces.....	860	
	Compamento.....	2,921	
	Carolina.....	6,172	
	Entrerios.....	1,925	
	San Andes.....	2,357	
	Yarumal.....	7,779	
	Zea.....	2,108	
Nordeste.....	Amalfi.....	6,817	15,993
	Nechi.....	728	
	Remedios.....	4,660	
	San Martin.....	1,124	
	Zaragoza.....	2,664	
Sud-este.....	Jerico.....	8,191	21,026
	Andes.....	5,392	
	Bolivar.....	2,225	
	Nueva Caramanta.....	1,797	
	Tamesia.....	2,003	
Cauca.....	Valparaiso.....	1,418	31,990
	Titiribi.....	8,236	
	Amaga.....	6,048	
	Concordia.....	5,392	
	Heliconia.....	4,774	
Sopetran.....	Fredonia.....	7,540	25,403
	Sopetran.....	9,818	
	Belmira.....	1,525	
	Evejico.....	4,057	
	Laborina.....	2,300	
Occidente.....	Sabanalarga.....	1,864	28,702
	San Jeronimo.....	3,741	
	Sucre.....	2,098	
	Antioquia.....	10,205	
	Anza.....	3,537	
	Buritica.....	2,313	
	Canasgordas.....	2,409	
	Frontino.....	3,142	
Oriente.....	Giraldo.....	1,323	
	Ituango.....	1,826	
	Unas.....	3,947	
	Rionegro.....	9,065	
	Cármén.....	3,839	
	Ceja.....	4,118	
	Concepcion.....	2,715	
	Marinilla.....	5,518	
	Nare.....	427	
	Peñol.....	4,129	
	Guatopé.....	763	
	Retiro.....	5,722	
	San Rafael.....	760	
	Santa Barbara.....	5,042	

Departments.	Districts.	Populations.	Total populations of dep'ts.
Oriente .....	Santuario .....	3,443	83,224
	Cocorná .....	2,004	
	San Vicente .....	5,751	
	Guarne .....	5,193	
	Abejorrel .....	7,194	
	Sonson .....	10,162	
	San Carlos .....	1,771	
	Union .....	1,861	
	Vahos .....	3,747	
Sur .....	Manizoles .....	10,562	44,638
	Aguadas .....	8,837	
	Aranzaza .....	2,882	
	Filadelfia .....	2,205	
	Neira .....	5,884	
	Pacora .....	4,997	
	Salamino .....	7,792	
Total .....			365,974

The 365,974 inhabitants are in a ratio of 16 to every square mile, and are classified as follows: Men, 181,492; women, 184,482; total, 365,974.

#### COMMERCE.

Few countries in the world are more disadvantageously placed for commercial intercourse than the State of Antioquia. Its special topography, the distance of the capital and chief towns from the sea and river ports, and the want of highways (for the narrow passages through steep rocks cannot be regarded as such) have condemned this important part of Colombia to be deprived for ages of the benefits of foreign commerce. It may be said that nothing is manufactured here; all goods are brought from foreign countries, from the rich dress of the elegant dame to the coarse cotton stuffs for the peasant.

Foreign merchandise generally reaches the Colombian ports in steamers; the principal port is Sabanilla, whence they are carried to Barranquilla by railroad; they are then taken by steamboats up the Magdalena River to Islitas or Nare, leading ports for importation.

As merchandise has to be carried to the interior of the State on mules or men's backs, it must be put up in bales of not more than 70 kilograms in weight. Each mule is loaded with two bales, and as they are exposed for days to rains and to the mud of the road, it is necessary to pack the goods in a special manner well known to the European houses trading with this country. This special manner of packing causes an *extra*, which greatly increases the cost of merchandise.

The freight per bale from Barranquilla to Islitas is \$1.60; that is, about \$20 per ton. The freight of a *carga* (two bales) from Islitas to Medellin varies from \$10 to \$12, besides \$1 paid for storage, &c. The distance from Barranquilla to Nare is 200 leagues, and from Nare to Medellin 30 leagues.

It may be seen that the cost of a bale weighing 70 kilograms from Savanilla to Medellin would suffice to transport it four times around the world in a sailing vessel, or even on a steamer. Thus it is that articles of small value attain an almost incredible increase in cost in this locality.

All this proves my assertion, at the beginning of this chapter, that nowhere else could such a state of things be found as exist in this country, where the people, although given more largely to commerce than in any other state of the republic, have been for so long a time debarred from the benefits arising from commercial intercourse with other nations.

The Antioquian status of commerce is very respectable and very well known in Europe, and its credit is very justly deserved. The principal business is carried on with England, France, and Germany. Cotton goods and iron tools are almost entirely brought from England; silk, woolen, fancy, and fashionable goods and drugs from France; and hardware, toys, mock jewelry, and notions from Germany.

The good reputation enjoyed by the merchants has enabled them to import, perhaps, with more boldness than prudence; and a large quantity of merchandise is at present accumulated here in consequence of the civil wars, which have impoverished consumers.

Commerce is at present passing through a sharp crisis. Exchange is very difficult, and frequently a premium of 12, and even 14, per cent. has to be paid on foreign bills of exchange. Such rates were never seen here before, and there is but little hope of a favorable change. The annual exports have not diminished, and therefore the high price of bills must be caused by the large quantity of merchandise lately imported, and also that many wealthy people have gone abroad out of the way for security. Then, again, Colombia produces but little for export, and the gold of Antioquia is eagerly sought by the other States of the republic.

Very slight commercial relations exist between the United States and Antioquia. I have endeavored to increase them, and though something has been done, still my labor has met with but little success. I have quite a number of catalogues and price lists of the United States market, but nothing can be done here by the mere showing of catalogues. The best way to succeed here would be to send agents who speak Spanish, with samples of the principal products of the country. The house of Messrs. Coombs, Crosby & Eddy, of New York, has adopted this means. I introduced the agent to the principal houses of this city, and he went away well satisfied with his mission.

It is impossible to fix the exact amount of imports and exports in this locality, and the following table has been framed for the purpose of giving an approximate idea of the figures.

#### VALUE OF ANNUAL IMPORTS.

From England .....	\$2,000,000
From France .....	400,000
From Germany .....	100,000
From United States .....	80,000
Total .....	2,580,000

#### VALUE OF ANNUAL EXPORTS.

To England .....	\$2,070,000
To France .....	540,000
To Germany .....	60,000
To United States .....	100,000
Total .....	2,770,000

#### ROADS.

The State of Antioquia is placed in the midst of huge mountains, and the roads opened through them are mere narrow ways, almost impassable during the rainy season. The distance between Nare or Isalitas and Medellin is about 30 leagues (90 to 100 miles). Travelers and merchandise are transported to and from these places on mules or men's backs.

In order to give a graphical description of roads in the State of Antioquia, I may copy the lines of a learned Frenchman, Mr. Boussingault, who was acquainted with them about half a century ago, and describes them as follows:

Antioquia is a country of difficult access, being, as it is, entirely surrounded by craggy mountains, through some of which travelers have to be carried on men's backs. There are still many inhabitants in this province who have never been able to go abroad; for, unfortunately for them, as they are fat and heavy, they could find no carriers strong enough to convey them. With such roads it is easy to imagine how expensive transportation must be, and how goods, of small value in their first cost, reach exorbitant prices after the expenses of their portage from distant places.

These were Mr. Boussingault's words in the year 1828. It is to be hoped that before the close of the nineteenth century we may see the railway in operation that Mr. Francisco J. Cisneros, under the patronage of the government, is building from Puerto Berrio to this city. The principal officers of this railroad are American citizens, and Mr. Cisneros himself, who, though a Cuban by birth, is an American by naturalization, is the director and grantee. The following gives a brief outline of this enterprise.

Puerto Berrio is 125 miles distant from Medellin and 412 miles from Barranquilla. The gauge of the road is 3 feet, and the bed lies on embankments of 9 feet; base of cuttings, 11 feet. The weight of rail is 30 pounds per linear yard, and the grades vary from 1 to 2 per cent., there being several of 3 per cent., and two of 6 per cent. The heaviest could be reduced to 4 per cent. if desirable; and the minimum radius of the curves is 230 feet. The works remaining to be constructed are: 48 bridges, 312 trestle-works, 335 culverts, and cuttings to the amount of 2,080,906 cubic yards of earth, and 812,738 cubic yards of rock.

The embankments when completed will extend for 1,241,643 cubic yards. This will constitute in all a movement of material of 41,351 cubic yards per mile, or an average of 23.49 cubic yards for each linear yard of road. The total cost of constructing the road will be \$6,159,906.02, or \$61,599.06 per mile from Puerto Berrio to Barbora (100 miles), including rolling stock, appropriations for contingencies, and the directors' and employes' pay. The building of the road as far as Medellin will be completed September 1, 1891. The national government conceded to the enterprise \$1,000,000 in national bonds, which are receivable in the custom houses of the republic in payment of 4 per cent. of duties. The state has also conceded bonds to the value of \$747,350.62, of which \$251,800 are already redeemed. The grantee receives the sum of \$11,000 per kilometer or \$17,700 per mile, but in no case whatsoever will he receive more than \$2,000,000.

The works were begun in November, 1874, but it became necessary to abandon them in consequence of the filling up of the port by large deposits of sand brought down by the river, which impeded the approach of steamers. Mr. Cisneros published a report in New York (40 and 42 Broadway) both in English and Spanish, whose object was to make known the conditions of the enterprise and of the country in which it was to be executed; its resources, and the causes impeding its development; the topographical difficulties to be overcome, and the reasons for expecting an increase of traffic and consequent augmentation of the natural productions of the country.

#### AGRICULTURE.

Nature has bestowed on the State of Antioquia great sources of wealth in its mines, which are equal to those of Mexico and California; but failed

to endow it with the fertility of the other states of the Columbian Union. Agriculture, the principal source of prosperity to nations, is here, say, in its very rudiments. Machinery used in the United States and Europe for agricultural purposes is almost entirely unknown here, and it may be said that the earth is worked with plows and hoes, such as Tripotlemus gave to the Greeks. It must not be said, however, that the territory of Antioquia is altogether barren and fruitless. The interior valleys, though small, are fertilized by many rivers and brooks, and the valley of Medellin, that gives its name to this city, is both high and carefully cultivated, showing chiefly many sugar-cane plantations. This valley, viewed from the neighboring hills, is very beautiful, and looks somewhat like a gigantic chess-board with variegated squares. Its appearance can hardly be surpassed, even by the vale of Cashmere, whose beauties are so highly praised by poets.

There are no regular seasons, as in the United States and Europe. The temperature varies, in a harmonious proportion to the highness of its territory, from the perpetual snow in the Paramo de Ruiz to the burning sand near the Magdalena River. Hence the change throughout the country in vegetable productions, as it is seen in the following table and list of prices:

Indian corn .....	per quarter.	\$ 60
Rice .....	do do....	1 60
Frijoles (kind of bean).....	do do....	1 10
Brown sugar .....	do do....	50
Cocoa.....	do do....	7 80
Tobacco: first class .....	do do....	5 90
second class .....	do do....	4 50
third class .....	do do....	1 60
Wheat flour .....	do do....	1 80
Salt (from best springs).....	do do....	2 00
Salt (for cattle, &c.) .....	do do....	80
Plantains .....	do do....	15
Barley .....	do do....	6 20
Beef .....	do do....	3 00
Pork .....	do do....	4 80
Potatoes .....	do do....	60
Starch .....	do do....	1 60
Cow milk.....	per liter ....	07½
Eggs .....	per dozen...	20
Beer.....	per dozen of ¼ bottles....	90
Wine (monopolized by government).....	demijohn of 24 bottles....	8 00
Anise seed, aguardiente 19° (monopolized by government) demijohn of 24 bottles.....		8 80
Anise seed, aguardiente, 20° .....		14 00
Anise seed, aguardiente, 21° .....		14 00
Alcohol, 25° .....		9 60
Alcohol, 30° .....		14 00
Alcohol, 36° .....		16 00

#### MINING.

Mining is the leading industry of the State, and the principal source of its wealth. The northern and northeastern departments are considered as the richest in precious metals and have produced almost all the gold exported. Amalfi, Anori, Santa Rosa, Garumal, Zea, Zaragoza, and, above all, Remedios, are the most important mining centers in the State. The largest mining establishment in Remedios belongs to the Frontino and Bolivar English Company. It is well mounted with steam engines, by means of which, a large quantity of gold is taken out, but with great cost. Besides this, there are in Remedios about twelve mines equipped with rammers and other adequate apparatus for their working.

After the Northern and Northeastern Departments come those of

a large proportion of the more adventurous and discontented classes who were able to pay their own way, or were fortunate enough to have it paid for them by friends or relations in the United States. This extraordinary exodus exhausted the possibilities of emigration for the time being. It is reasonable to expect, however, that as soon as the pending harvest is over the rush will begin again, and it is a noteworthy fact that the trans-Atlantic steamship lines touching at this port are making proper arrangements for this expected renewal of emigration.

Another reason for the present decrease is the anticipation, grounded upon recent proceedings in parliament, that Her Majesty's Government will soon offer substantial aid to emigrants to the several British colonies.

Still another reason resides in the fact that, under the existing domination of the land league in this country, thousands upon thousands of farmers, large and small, are practically protected in the non-payment of their rents, and thereby enabled to enjoy the profit of free lands; and I venture the prediction, based upon close observation of current political indications, that this exemption from the fulfillment of lease contracts will be continued to a greater or less degree, even after the pending land bill becomes a law, for it is the avowed purpose of the leading land-league agitators in this country not to except that act as a final reform measure, but to insist upon still further concessions from the land owners to the tenant class.

#### COST OF LIVING IN EUROPE AND IN THE UNITED STATES.

However this may be, I believe that the interests of the United States in the matter of inducing further immigration from Ireland, and Europe generally, can be subserved by a widespread publication of the fact that the expense of living to the laboring classes in America is not so great as many people on this side of the Atlantic seem to believe. The publication by the Department of State of statistics of "labor in Europe,"\* had the effect of showing the advantages of high wages to be earned in the United States; but the impression still prevails that the cost of living is correspondingly high. It is true that the average laborer in this country lives at a ridiculously small cost; an average of less than \$3 a week; but it is also true that he does not live so well, nor so comfortably, as he does in the United States, although, in the latter country, where he enjoys a greater variety of food, and is respectably housed, he pays more for his living than that sum. Yet, I venture to say that if he would go from week's end to week's end without tasting meat, and live the same there as he does here, he could live in the agricultural regions of the United States as cheaply as he could under the same circumstances in Ireland. It is capable of demonstration, for ex-

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\* In the work referred to, "Labor in Europe," issued by the Department in 1878, the question of food prices and cost of living in Europe and in the United States was discussed at as much length as the question of wages, and the statistics given therein proved conclusively and clearly that the prices of food in the United States were less than in Europe. In the Secretary's summary, this food-price question is thus referred to:

"The prices of the necessities of life are lower in the United States than in any of the foregoing countries; that is, the laboring people of Europe cannot purchase the necessities of life, which are common to the American working people, as low as the same can be purchased in the United States; or, *vice versa*, if the working people of the United States lived on the same quality of food, or comparatively the same, and exercised the same frugality as the working people of Europe, they could live as cheaply as the working people of any country in Europe."

ample, that cheap clothing in the United States is cheaper than it is here.

This assertion, which I now repeat after due investigation, was made in my No. 24, and being reprinted in the public press here was contradicted. The contradiction, however, was based upon the assumption that cheap clothing in the United States is relatively as dear as the higher grades. But the truth is that clothing, such as is generally worn by the laboring people, a suit of which, including hat and shoes, would cost at least \$10 here, could be bought in Washington, not an exceptionally cheap place for purchasers, for about \$7.50. That is to say, £1 10s. 5d. in the United States would purchase of the grade of clothing in question the same goods that would cost £1 10s. 2d. (intrinsic value) in Ireland.

The fact that much of the grain, meat, and other necessities of life (considered as necessities by people of all classes in America, but as luxuries by the poorer classes here) is produced in the United States, shipped to this country, and then sold at a profit in competition with native products, is of itself sufficient to show that comfortable living is more readily and cheaply attainable in the United States than in any part of Great Britain and Ireland; and not only is this true of food stuffs proper, but of countless other American products, manufactures, and inventions.

It is a noteworthy fact in this connection that the public press of Ireland, and England as well, in discussing the emigration question, is beginning to compare the existing systems and laws in the United States and the United Kingdom as regards their effect upon the well being and personal condition of the people at large. It has been argued that the overplus of agricultural products in the United States and a temporary agricultural depression in Europe have combined for several years past to give to the former country the advantage of a balance of exchange in its favor. But that argument is no longer of avail since the trade in breadstuffs, sustained as it is by the profits of labor-saving machinery and inexhaustible fertility of soil in the United States, has become a permanent feature in our international commerce. This condition of affairs is, of course, a source of alarm to the capitalist, and especially to the agriculturist, here. For example, one of the most extensive farmers and graziers in the south of Ireland told me not long ago that at least 25 per cent. of his former profits are now "destroyed by American competition." The immediate result of all this, as well as of a desire, if possible, to restrain the tide of emigration, is a decided popular impulse in favor of the abolition of England's boasted free-trade system. The theory of this impulse is the old one, that home manufactures and products being protected from foreign competition, home producers will be able to pay higher wages for labor, as they will receive higher prices for their products, and that the community at large will receive the benefit.

I inclose herewith an editorial extract from the Irish Times (Dublin), the leading conservative newspaper of this country, in which, in commenting on my No. 24, printed in Reports of Consuls No. 5, some significant allusions are made to this new free trade movement.

E. P. BROOKS,  
*Consul.*

UNITED STATES CONSULATE,  
*Cork, Ireland, August, 4, 1881.*

*Editorial extract from the Irish Times, of Dublin, Ireland, May 30, 1881.*

The American consul at Cork has addressed a remarkable report to his government on the opportunities offered by the present time for pushing the sale of American products and manufactures in Europe. Not long ago, he says, it was the fashion on this side of the Atlantic to decry the worth of real American articles, which were coupled in people's minds with ideas of "basswood hams" and "wooden nutmegs." At present a great change is noticeable. Irish, English, French, and German manufactured goods are now prepared and labeled as American, and find a readier sale under false pretenses than if they were offered as what they really are. Colonel Brooks not unnaturally concludes that these practices denote a strong appreciation of genuine American products on the part of the consumers, and he argues that there is an opening for American products in Europe corresponding in extent with the quantity of sham articles sold. How vast is the invasion of our markets which the consul urges his countrymen to attempt, may be gathered from the list of products to which unscrupulous traders find it in their interest to affix the American stamp. It includes "canned fruits, canned meats, condensed milk, desiccated vegetables, prepared soups, essences of food, hams, bacon, cheese, butter, household furniture, kitchen accouterments, heating apparatus, gas and water fixtures, plumbers' inventions, agricultural implements, mechanical inventions of every description, and manufactures of all kinds (!), including boots and shoes and the cheaper articles of clothing, hats, caps, &c." The consul thinks it safe to say that all the luxuries and necessities of life, with the exception of so-called indigenous specialties, wines, spirits, and the higher grades of clothing, are better made, better finished, and more economical in price and durable in use in America than they are here. This superiority, according to the consul, is not only unquestionable, but is admitted by the average dealer and consumer here, and there exists in the old world a widespread predilection or prejudice in favor of American products and manufactures. To "clinch this prejudice to the extent of increasing the American export trade to almost limitless bounds," Colonel Brooks calls upon American commercial and business associations, boards of trade, chambers of commerce, and other local organizations to take the matter in hand as regards their particular "lines," and advertise them by means of traveling agents, lecturers, circulars, newspaper subsidies, and polyglot pamphlets. Action of this kind would flood the old world with information with regard to American products, and the literary deluge would be followed by a material one.

Consul Brooks's report is very ambitious in scope, but we suppose we may infer from the special functions he discharges that it is intended to have particular reference to Ireland and the United Kingdom. We must say that we learn with much surprise and not a little skepticism that there exists in these countries such a widespread demand for American goods. Irish producers of food know to their cost the formidable nature of transatlantic competition, but we never heard of an untraveled Irishman, or Englishman either, knowingly wearing American boots, shoes, hats, or other articles of clothing. On the other hand, we are aware that Americans visiting Europe very frequently show a strong disposition to take back with them to the United States a stock of clothes apparently sufficient to last a lifetime. If the luxuries of life are cheaper in America than they are here, the British public are yet in utter practical ignorance of the fact, as they have been hitherto accustomed to lay France and the other continental countries under contribution for what they cannot produce themselves in this respect. The British aristocracy, who are reputed to know something about the comforts and refinements of life, are not, as far as we know, pensioners on America for any of their enjoyments. But even if we allow a good deal for patriotic exaggeration, it is evident that Consul Brooks would not adopt such a decided tone in his report if he had not some sure ground to go upon. We must conclude that there is reason to apprehend a competition on the part of America as well in manufactures as in food, and the fact is a very alarming one.

While America is willing to take our goods in at least part payment for the food of which we stand in need, our present commercial relations with that country may be tolerated. But if she insists on reducing our industrial classes to idleness after beggaring our agriculturists, where is the money to come from to pay either for her manufactures or her food stuffs? If Consul Brooks's anticipations were realized we should have either to revert to protection or to live in interdependence on our own resources, eked out by whatever profits we could make on trade with such countries as would still consent to buy our goods. But we do not believe that things are as yet approaching this pass. America will probably in the time to come send us more of those articles which have made a special market for themselves by the ingenuity of their contrivance; but as yet the cost of labor in the United States is too high to allow of any general competition in manufactures with us. Should the time ever come when the Americans will be able to beat us out of our own markets we shall have in self-defense to consider whether the needs of the revenue cannot be better met by duties on the work of foreigners than by taxes on national labor.

**GERMAN PETROLEUM WELLS.***REPORT BY CONSUL SCHOENLE, OF BARMEN.*

The long-talked-of operations for the discovery of petroleum wells on the southern border of the "Luneburger Heide," that sterile and desolate tract of land in the northwestern part of Germany, have at last met with success in the so-called "east spring-well" on the oil field of Mr. Adolf M. Mohr, near the city of Peine, on the Hanover and Brunswick Railroad. The discovery of this well may prove to be the herald of as important a yield of oil as in some of the Pennsylvania regions. The copious supply and first-rate quality of the oil from this well are certainly more than the fitful spoutings of gassy pools, and the American petroleum trade may have to contend in the near future with a sharp rival in the newly-discovered German oil region. In addition to this well there are several others lately struck, some of which are said to be as prolific and copious as those in Pennsylvania. It is true that most of them have hardly passed the first stages of development, but the prospects bid fair for great results, and on the barren soil of this heathy land the foundations of an industry have been laid which may soon become one of the most important in the northwestern part of Germany.

Already quite a settlement has been formed here, and bears the significant name of "Oelheim" (oil-home), and hundreds of people are wending their way to this new German petroleum "Eldorado." The excitement runs high in northwestern Germany, and one is reminded of the rush occasioned by the discovery of the oil wells in Pennsylvania, and more recently by the accounts from the silver mines in Colorado, Nevada, and Idaho. Speculators are already at work, and real estate in the oil region is fast running up, so that the lease of an acre valued at from 20 to 30 marks before the striking of the oil wells is now readily sold at amounts ranging from 3,000 to 4,000 marks. Several companies are operating on the field, of which the principal ones are "The German Petroleum Boring Company," started and controlled by capitalists of Bremen; the private enterprise of Mr. Adolph M. Mohr; one English company, and two German companies, started very recently. In addition to these there are several others projected. The German Petroleum Boring Company has up to the present sunk twenty bore-holes, of which there are eight in operation, and has constructed a central basin holding 6,000 centners of petroleum; a machine-repairing shop, and a water tower. There have been laid 9,820 meters of pipe leading to the city of Peine. A powerful pumping machine has been set up, together with a large refinery.

The works established by Mr. Mohr are especially interesting, as the large and productive "spring well" was discovered a few weeks ago on his field. Mr. Mohr sunk four borings, one to a depth of 90 meters, the second 70 meters, the third to 69 meters, and the fourth to 68 meters. The third boring leads to the renowned "spring well," which yields every twenty-four hours the enormous quantity of 90,000 liters fluid, of which 33½ per cent. is salt water and 66½ per cent. is oil. This oil yields in the refinery 45 per cent. clear petroleum of the best quality, said to be

superior to the imported American standard oil, and 50 per cent. of fine lubricating oil, while 5 per cent. is evaporated by the refining process. An analysis of the oil from this well showed that it contains 5 per cent. of naphtha. All other oils obtained previously do not contain a particle of naphtha, so it may be presumed that this "spring well" flows from a greater depth than the other wells on the field. The "spring well" furnished within seven days after its discovery 1,250 barrels. The color of this oil when separated from the water is bright green.

Mr. Mohr has lately constructed a subterranean channel from his oil field to Peine for refining purposes. The indications lead to the presumption that the German Petroleum Boring Company may also strike an oil artery of as great a yield as that on the field of Mr. Mohr, for both works are in close proximity, and this prospect has caused a considerable rise of the company's stock on the Bremen bourse. All operations on the oil field are carried on in a very rational and economical manner, and, taking into consideration all the surrounding features, it would perhaps not be amiss for American oil producers to take them into due consideration, as by saving the import duty and the costs of transportation the German petroleum production has a considerable advantage over the American.

WOLFGANG SCHOENLE,  
*Consul.*

UNITED STATES CONSULATE,  
*Barmen, August 5, 1881.*

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## THE CENSUS OF SIERRA LEONE.

REPORT BY CONSUL LEWIS.

[In this report Consul Lewis only referred to certain paragraphs in the census returns. The Department has had these paragraphs copied and incorporated herewith.]

I have the honor to transmit herewith the "Census Report" (census taken April 3, 1881) of Sierra Leone. I would have been glad to have transmitted it earlier, but it is only just published.

### POPULATION.

In regard to the varieties of the races composing the population, the census says:

No one who attentively examines this portion of the return can fail to be impressed with the variety of the African nationalities which form the population of Sierra Leone, and I venture to express the belief that there is no other colony throughout Her Majesty's possessions that contains so mixed a population as are assembled upon this peninsula. Some sixty languages are spoken in the streets of Freetown.

The white races are represented by the following nationalities:

Nationality.	Resident.		Floating popula- tion, i. e. ships in harbor, &c.	Total.
	Sierra Leone.	Depend- encies.		
English.....	92	12	59	163
Welsh.....	1			1
Scotch.....	2			2
Irish.....	6			6
American.....	3	1	9	13
West Indian.....	2		1	3
French.....	5	10	20	35
German.....	8	1	8	17
Italian.....	1			1
Swiss.....	7	5	5	17
Belgian.....			1	1
Dutch.....	1			1
Portuguese.....	4		2	6
Swedish.....	1			1
Norwegian.....			3	3
Greek.....	1			1
Total.....	134	29	108	271

Your attention is respectfully called to paragraph 4, herewith given under head of "occupation," page 9, which paragraph corroborates all my statements in former reports regarding this people being largely given to trade; present profits, however small, preferred to future gains, however promising.

That there should be, out of a total population of 60,546, close upon 11,000 traders and hawkers, is a circumstance sufficiently surprising and important to claim the closest attention of the executive and the legislature; nor can the ordinary observer of these statistics fail to be impressed with such a state of things. On the peninsula of Sierra Leone there are returned 53,862; of these, traders and hawkers number 10,250 or about 19 per cent., but as many of the so-called school children and persons who describe themselves as of no occupation are also hucksters, to say nothing of the transient traders, the percentage under this head can safely be put at 23. What good, I ask, can come of a country where one-fourth of its people are dependent for their livelihood upon what they sell to the remaining three-fourths, or, to put it more plainly, where one individual in every four is dependent upon the profits of what he or she disposes of to the other three?

The "transient traders" and "strangers" are the people who bring money into the colony, coming in lots of from ten to fifty at a time. They bring the articles which the surrounding country furnishes—gold, rubber, beeswax, gum copal, and various other products.

It is the internal resources of the country and the slave-grown produce of the aboriginal tribes that makes Sierra Leone what it is, and not the hard work of its own inhabitants. Shut up the roads and close the highways of communication to the interior, and Sierra Leone would soon dwindle in numbers and prosperity to small proportions. It is not self-supporting.

MISSIONARIES.

It is the universal testimony of business men throughout this country, looking at the question in a practical way, that the missionaries, as a whole, accomplish but very little indeed in the way of converting a man from paganism to Christianity. There is only one American mission known to me here which is accomplishing any good at all commensurate with its pretensions, and this is the Shengary Mission, Rev. Joseph Gouer, superintendent, with headquarters in the United States, at Dayton, Ohio, and this mission is a practical and not wholly a theoretical

one. It is partly self-supporting, for it has boys and girls who are taught to do all kinds of work, and they manage to raise off their farm much produce.

Your attention is also respectfully called to the following paragraphs from page 12:

To the Church Missionary Society (Episcopalian) Sierra Leone owes much. They commenced to establish educational institutions in the colony as early as 1815. In 1839 they erected a stone church at Kissy road; in 1849 that at Pademba road; in 1827 they established the institutions at Fourah Bay. The Church Missionary Society has spent close upon half a million of pounds in Sierra Leone!

Out of a total of 60,500 inhabitants there are recorded 16,000 pagans, or over 26 per cent. About one-half the number, as will be seen on reference to the table, are resident in British Quiah and British Sherbro. These are figures, however, which the various missionary bodies would do well to examine into.

I am aware how hard it is for the most earnest and painstaking to struggle with pagans, who for years have carried on their acts of idolatrous worship in Sierra Leone. But it seems equally hard to understand that, surrounded with churches and chapels and mixing with the large body of pastors and teachers, there should still be those among us who believe in and worship every possible thing from small-pox to thunder.

It would be difficult to point to a town or country which contains so many churches, chapels, preaching-places, or meeting houses in comparison to the number as Sierra Leone, and Freetown in particular; and if an estimate of the godliness of its inhabitants were based on such statistics Sierra Leone would indeed be a model community in modern Christendom. It is not for me, however, to criticise the motives which actuate the people in erecting so many preaching-places, or judge of the good which results therefrom, yet I cannot help mentioning how often during my two years' residence I have thought what increased advantages would result if the majority of those who teach and preach to their African brethren would inculcate a little less of the "Lord will provide" doctrine and a great deal more of the theory which teaches us to believe that "God helps those who help themselves."

I trust you will find this report interesting and a valuable auxiliary in giving you still further acquaintance with this colony of Sierra Leone.

JUDSON A. LEWIS,  
*Consul.*

UNITED STATES CONSULATE,  
*Sierra Leone, July 12, 1881.*

## HISTORY AND TRADE OF BRISTOL.

REPORT BY CONSUL FARRELL.

It is now past ninety days since I had the honor of assuming the position of consul of this district, and during that period I have endeavored to carry out the intent and purpose of the State Department by developing the interests of the land, purchase, emigration, and trade with every portion of the United States.

As a preface to the ensuing figures I submit some historical reminiscences of this ancient city.

Bristol is one of the oldest cities of the United Kingdom, and shows back far antecedent to London, as its many remaining Roman antiquities bear evidence. From this city, under Henry the Second, issued Strongbow, Earl of Pembroke, in 1172, and made the conquest of Ireland, and at one time subsequently its merchant princes and representative men controlled the municipalities of both Dublin and London. The Cannynges brothers were each and at the same time mayors of London, Dublin, and Bristol, respectively, in the fifteenth century.

Royalty paid homage to its wealth and power, the battles of the

Roses and the Tudor family drew their financial resources from its exchequer, and its channel fleet commanded the sea-girt shores of old England long before the arrival of the Spanish Armada, and it proved the main strength of Britain against this crusade.

From this port John and Sebastian Cabot made their voyage of discovery to our country, thus familiarizing and popularizing the new continent as discovered by Columbus. From hence floated the first tide of emigration to Virginia under Sir Walter Raleigh, and also the earliest voyages of Penn and the followers of the "Mayflower."

The early friendship of Bristol, as bestowed upon the colonies is well known even to this day. Edmund Burke, the great orator who represented Bristol in the British Parliament during the reign of George the Third, was the pronounced advocate of George Washington. The colleague of Burke was elected during this trying period of history, canvassing this city with a banner displaying the Stars and Stripes intertwined and blended with the British flag, and in our struggle for the "life of the Republic" no *Alabama* or other such craft sailed from its shores, nor did its merchants sympathize with the enemies of the Republic, and to-day there is no part of Great Britain so worthy of the friendship and good will of the United States as the famous city of Bristol, the metropolis of the west of England.

Bristol to-day, although apparently behind hand, is making rapid strides for our international trade, and is of more importance to the future interests of the United States than custom-house figures denote, as many hundreds of the grain vessels leaving the States are shipped for Queenstown or Falmouth, but eventually reach either this port or Gloucester.

From this port departed the Great Western, the first steamer that ever crossed the Atlantic. It has never had the progressive characteristics of Liverpool or Glasgow, but its conservative wealth supports and controls the grain trade of the United States. Gloucester (which is merely the store house for the Bristol merchant) in connection with Bristol is the distributor of fully two-thirds of the grain exports of our country for the west of England and the entire Welsh principality. Their combined storage capacity exceeds *one million of quarters*, and, singular to relate, such is their wealth in gold that never for centuries has a panic in moneys occurred, with one solitary exception. The shareholders lost, but every dollar due depositors or other creditors has been liquidated with interest.

From time immemorial Bristol has had like unto London a guild of gold-men called "merchant venturers," who to-day are heard of through their Chamber of Commerce, which is the peer of any in the Kingdom. Its commerce has met with many disasters; the old trade with the West India Islands was unexampled in its collapse and consequent distribution of twenty million of pounds sterling for slave compensation. Bristol merchants had claims for three-fourths of that amount, which has ever since been solidified into the banking capital of this wealthy municipal city.

The conservatism of Bristol has given Liverpool, Glasgow, and the north country precedence in shipping interests, but the past ten years have created a spirit of emulation, and new docks and the dockage of the entire river Avon up to the city front is now the question of the day and hour.

Some ten years past the Bristol public were gratified with the announcement of the purchase of the steam ship *Arrogant*, a pioneer ship, to open up direct trade with New York and Baltimore. Since then six

more have been added thereto, and this "Great Western Steam Ship Company" have now six more under sail and three additional large boats on the stocks for the special purpose of carrying live stock. In 1870 the total steam tonnage arriving from the States amounted to 3,314 tons. But in the past year 1880, the total steam tonnage from New York amounted to 90,000 and from Baltimore to 25,000 tons. In this shipping progress unfortunately we have no interest in the carrying trade. Its great advantages consist in the facility for the transportation of our live stock, our cereals, our pork, butter, lard, cheese, &c.

The number of ships owned by the United States and employed in the carrying trade before the war was 715, representing a tonnage of 480,882 tons.

In the year 1860, 70 per cent. of the foreign commerce of the country was carried on in American ships, and at this present writing figures do not give us 20 per cent.

From an extract with which I have been favored by a representative of Lloyd's, there have been built and approved of by this institution 324 iron, 20 steel, and 3 wood steam vessels, of 457,317 tons gross tonnage; and 3 iron and 2 steel sailing vessels of 20,633 tons, thus making a total of 480 new ships, all built in the United Kingdom, representing 517,664 gross register tons. Wood as a material for ship building is fast falling into disuse.

On the 31st of December, 1879, there was in process of building 430,000 tons of shipping, and in corresponding date 1880 there were 702,922 tons, of which the proportion of steam ships was so large as to represent nine-tenths of the whole, and at the present writing there is a tonnage of over 800,000 tons in process of construction.

Thus our future shipping interests are cast into the shade. Since my advent to this office only one solitary American vessel has arrived at this point, and none at Gloucester. Our wealth in cereals supersedes all those shipping advantages, as will be seen by the following figures of arrivals of grain at this port from the United States in the relative years 1870 and 1880::

	Wheat.	Barley.	Oats.	Maize.	Flour.	Oil cake.
	Quarters.	Quarters.	Quarters.	Quarters.	Barrels.	Tons.
1870 .....	284, 152	245, 842	129, 971	188, 274	32, 250	1, 065
1880 .....	669, 995	356, 917	155, 542	548, 635	123, 023	24, 260
Increase .....	585, 863	111, 075	25, 571	360, 361	90, 733	23, 195

HOG PRODUCT TRADE.

The increase of the United States hog product trade in this market, during the same period, is over 100 per cent. Much damage has been done to the legitimate trade by fraudulent branding of shipments from Milwaukee to Bristol. This has damaged the reputation of the whole country, and it is reasonably asked why the United States Government does not make Federal branding a *sine qua non* for all shipments. A fraud in branding committed in the least of our States or territories reflects discredit upon the whole nation.

BUTTER.

The butter trade of the United States with this section is at a discount. The French shippers have control, from the facts of putting up

neater packages and having a more careful selection and branding. Great improvement is needed in this particular matter ; clean neat packages attract sales.

#### CHEESE.

The increased attention given by the co-operative system of the United States to the cheese product has given it control of this market. What is now needed is smaller sizes, say 10 to 20 pound packages, such as are received in this market from Holland. If the factors adapt a portion of their shipments to these sizes they can successfully compete for control of this market.

*Lard.*—American lard has complete control of the British market. Wilcox, Fairbank's Brands, are daily quoted on change, side by side with consols.

Oleomargarine has received new impetus from Consul Archibald's reports from New York, which are quoted through the entire press of the west of England. A singular fact in connection with the trade is that nine-tenths of the Holland butter reaching the English market is of this product, the raw material of which is shipped from the United States to that country. There is no doubt that in the near future oleomargarine or butterine, or whatever it may be designated, will be as popular and merchantable as condensed milk is at this present time.

*Flour.*—The future for choice brands of flour in this market will be unlimited. The perfection of our milling and the studied experience of our experts will eventually wipe out the slow plodding millers of this country. The weekly supplies from the States have increased fifty fold ; many of the neighboring millers buying it in bulk and selling it from their mills, as of their own production.

*Leather.*—The importation of American leather for English requirements, which up to the last few years was entirely confined to Liverpool, Manchester, and London, has shown an extraordinary increase in consequence of the enlarged shipping facilities between this city and New York ; this port is now second to that of Liverpool.

*Tobacco.*—There has been little variation in this market as regards local trade during the past year. The supply of the finest qualities both from Virginia and the Western States has been fully equal to the requirements of manufacturers.

*Petroleum.*—Bristol ranks as the third port in the kingdom for this article, and sales and imports averaged 5 per cent. in 1880 over those of 1879.

*Tallow.*—American tallows have fairly maintained their values at about 34s. to 36s. sterling.

*Pitch* and tar are at a very low ebb and do not justify heavy shipments.

*Spirits of turpentine.*—In spirits of turpentine there have been considerable fluctuations caused by speculation. At the beginning of last year prices were 31s. to 32s. per cwt., increasing rapidly, until, at this present writing, quotations are 45s. to 46s.

*Canned meats.*—Tinned American fresh and corned beef, from Saint Louis and Chicago, now enter into the economies and consumption of every household, and no improvement is possible in this article.

*American beef and mutton.*—Beef has now an established reputation, and "American beef stores" are established facts all over this city. The mutton is not so acceptable, nor will it be until some of the South-down and Cottswold breed of sheep belonging to this region are brought into use for the improvement of the American sheep. An American

sheep slaughtered rarely weighs 60 pounds, while English natives average 100 pounds. Hence the fame of Gloucestershire and Somersetshire chops.

All of the above enumerated staples have now an established footing here, but there are many other articles of export entirely unknown to the west of England; a kit, or can, or barrel of mackerel or whitefish, is totally unknown. I introduced them at Gloucester from samples sent me from Boston, and have adopted the same course of free distribution of these articles here; all of which will eventually result in a large trade with the Eastern States. Strange to say, with a fine fishing coast all along the Bristol channel, they know nothing of the curing and preserving of fish. The ideas of the fish merchant and factors of this section of England seem never to have exceeded the Yarmouth bloater or the red herring.

Referring again to Bristol in its present local and social standing, I have to state that its surroundings make it one of the most interesting cities of Great Britain. It has a population of 250,000, and its magnificent suburb, called Clifton, is the chosen residence of the city's wealth and culture. The city's site is embowered in a basin, within two of the most charming shires in England.

JNO. FARRELL,  
*Consul.*

UNITED STATES CONSULATE,  
*Bristol, England, June 17, 1881.*

## GERMAN AGRICULTURISTS ON THE DOUBLE STANDARD.

*RESOLUTIONS IN RELATION TO THE MONETARY STANDARD ADOPTED AT THE MEETING OF THE CONGRESS OF GERMAN AGRICULTURISTS HELD AT BERLIN. TRANSMITTED BY CONSUL-GENERAL KREISMANN.*

Whereas the maintenance of silver as a legal tender holding equal rights with gold cannot be dispensed with, for silver in circulation cannot be demonetized without serious loss, and, with the rapid falling off in the production of gold, the bullion in circulation would not suffice as a substitute for silver;

Whereas both the important rise in the price of gold, and the circulation of silver rendered valueless by its depreciation as an international means of payment, make the necessity more urgent from day to day for a common regulation of the currency question;

Whereas, further, as matters lie, any isolated steps on the part of any single country would be fraught with danger, and the adoption of the international double standard under treaty stipulations can only lead to a satisfactory solution of existing difficulties;

Whereas, also, Germany, by maintaining the exclusive gold standard, is more particularly exposed to danger from a rise in the price of gold, and the circulation in Germany of nearly a milliard of marks (\$238,000,000) of depreciated silver also threatens a serious injury;

And whereas effectual means against the depreciation of silver caused by the changes in monetary legislation, and by doing away with which all evils would be removed, can only be established by international conventions: Now, therefore,

*Be it resolved,* That the Congress of German Agriculturists, assembled

at Berlin on the 22d and 23d days of February, 1881, contemplates the assembling of an international monetary conference at Paris with sympathy, and confidently hopes that the imperial government will, while duly guarding the interests of Germany, contribute its utmost to reintroduce the double standard.

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## COMMERCE OF VICTORIA, VANCOUVER.

*REPORT BY CONSUL FRANCIS, OF VICTORIA, VANCOUVER'S ISLAND, BRITISH COLUMBIA.*

Arrivals and departures at this port embrace forty-one American steamers, running regularly by monthly, semi-monthly, and tri-weekly trips from and to San Francisco, Port Townsend, and Portland, Wrangel and Sitka; one ship, coal laden, in distress; two barks from China, with passengers and merchandise; one brig in ballast, and four schooners with produce from Washington Territory—their aggregate tonnage being 41,288 tons. During the same period, in addition to the regular coasting steamers and sailing vessels of the province, augmented neither in number nor tonnage, there were four arrivals and departures of foreign vessels from foreign ports, of the tonnage of 1,985 tons.

Imports in American vessels during the quarter, as reported, amounted to \$483,879, and in foreign vessels, \$260,000. The importations included all kinds of merchandise, machinery, farming implements, and produce. It is noticeable that importations from Canada are rapidly increasing, brought about by arrangements having been made with transportation companies to deliver in San Francisco, nails at 1 cent per pound; sugar, 2 cents per pound; and cotton piece goods, 2½ cents per pound. Freights from San Francisco to this port are from \$3 to \$5 per ton. The duties on nails are ½ cent per pound and 10 per cent. ad valorem; on sugar, ¾ cent per pound, and 30 per cent. ad valorem; on heaviest of cotton piece goods, 2 cents per square yard, and 15 per cent. ad valorem; on other goods of American manufacture the duties average 30 per cent. It is estimated that more than one-half of the imports into the province are now coming from Canada, and will soon materially diminish the receipts for customs.

Exports during the quarter show a diminution of coal and other products of the province. Of coal there were 41,684 tons shipped to California, valued at \$96,181.68, a falling off in the value of these two items, as compared with the corresponding quarter of 1880, of \$80,199.39, and in the shipment of gold dust and bullion, \$8,790.26. The entire exports for the quarter to the United States, as reported, amount to \$392,643.19. The value of exports from the province to foreign countries, as near as can be ascertained, embracing lumber, coal, wood, oil, and fish, is estimated at \$65,000.

Imports and exports for the year ending June 30, 1881, show an excess of imports over exports of \$56,740.39. Latterly no small amount of the imports consisted of materials and machinery for railroad construction of the Canadian Pacific, principally from the States, thereby sustaining, if not increasing, the customs receipts of the province. The trading exports from the province for the year—gold dust and bullion, coal, furs, and salmon—amounted to \$1,820,208.50, a falling off in these items, compared with the previous year, of near \$126,000. The gold mines of the province for several years past have been proving less pro-

ductive, and during the year just closed there has been less demand for coal and salmon, while fur-sealing on the west coast has produced less than half the number taken last year.

Business and railroad construction, progressing on the mainland now for more than a year, has proved to be of no particular advantage to this port, nor to the island. From this city it has taken away several merchants and quite a number of mechanics and laborers, and the business of the city has proportionably decreased, and is now confined in the wholesale line to a few old established firms. Numberless dwelling houses and many eligible stores, formerly occupied and showing life and activity, are tenantless, and an air of discouragement seemingly pervades the whole city. Not a new industry, saving the erection of a flour mill, has been projected for several years. The dry-dock being built at Esquimalt is making very slow progress. Emigrants can see inducement to settle in the province. Intending ones, who have explored the accessible portions of the island and mainland, report finding but little agricultural country, and of its being adapted only to limited stock-raising, seek homes in Oregon and Washington Territory. Census-taking, progressing for the last two months, has failed so far to disclose any perceptible increase in population, except on the line of the railroad, the construction of which is employing some 500 white men and 1,500 Chinamen; the latter are being brought direct from China by the ship-load, with rice and provisions to sustain them a year, and two more vessels similarly freighted and provisioned are daily expected.

Among the causes operating to retard the prosperity of Victoria, and the settlement and development of the resources of Vancouver's Island, are the hearing and witnessing of the rapid progress in the settlement and prosperity of the neighboring States and Territories, and the experience of disappointment from year to year of the promised construction of the island railroad, according to the terms of union, and these are awakening a deeper and more general feeling of dissatisfaction among the people.

ALLEN FRANCIS,  
Consul.

UNITED STATES CONSULATE,  
*Victoria, Vancouver's Island, July 15, 1881.*

## THE COMMERCE OF AUSTRALASIA.

REPORT BY CONSUL-GENERAL SPENCER, OF MELBOURNE.

I herewith forward a tabular statement showing the commerce of Australasia for 1879, made out from the latest available statistics of all the colonies—this tabular exhibit undertaken in consequence of the following reference to former tables in the Secretary's letter to Commercial Relations for 1879:

It is to be regretted that the consul-general's report does not show the distribution of this trade among the several countries having a share therein, as well as the principal articles and their values, as such a showing would give a more definite view of Australasian commerce than the foregoing, it being more than likely that inter-colonial imports and exports are mixed up to a large extent with the trade as given in the foregoing statement.

This being the first complete compilation showing the total commerce of Australasia, distinguishing the foreign from the inter-colonial trade,

it will be of more than usual interest to our merchants and manufacturers at the present time.

I may add that, for the limited space which it occupies, it has involved an immense amount of labor—the itemizing alone, with the additions and reductions into American money, covering over 500 pages of closely-written foolscap.

As nothing of the sort could be obtained from the several colonial bureaus of statistics, it has been carefully compiled from original sources, and is believed to be the most concise and at the same time the most comprehensive statement of the trade of Australasia ever published.

O. M. SPENCER,  
*Consul-General.*

CONSULATE-GENERAL OF THE UNITED STATES,  
*Melbourne, August 6, 1881.*

## STATEMENT SHOWING THE COM-

Articles.	WHENCE AND WHERE TO.					
	Great Britain.		Intercolonial trade.		United States.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
Agricultural machinery and imple- ments .....	\$678, 828	\$122	\$163, 256	\$101, 013	\$286, 793	.....
Alkali, soda, and crystals .....	171, 475	.....	20, 059	.....	438	.....
Apparel, wearing .....	5, 669, 078	185	1, 536, 655	918, 197	11, 586	.....
Arms, guns .....	335, 984	.....	46, 105	.....	8, 881	.....
Ammunition .....	591, 553	.....	233, 278	54, 539	1, 708	.....
Bark .....	.....	179, 428	.....	176, 567	.....	\$39
Bêche de mer .....	.....	.....	3, 830	.....	.....	.....
Beer .....	3, 228, 183	29	338, 986	37, 472	9, 489	.....
Biscuits .....	.....	.....	.....	122, 057	.....	.....
Blacking .....	42, 548	.....	11, 394	.....	6, 346	.....
Books, paper, and stationery .....	4, 116, 358	7, 236	1, 441, 564	191, 468	140, 739	560
Boots and shoes .....	3, 532, 651	.....	1, 394, 981	459, 801	17, 850	.....
Brushware and brooms, &c .....	271, 021	.....	39, 965	16, 308	54, 646	.....
Candles .....	876, 837	.....	157, 796	.....	68	.....
Caoutchouc manufactures .....	121, 994	.....	14, 171	.....	9, 505	.....
Carriages, carts, and materials .....	328, 815	.....	174, 964	91, 028	322, 625	.....
Clocks and watches .....	401, 088	.....	232, 658	.....	90, 906	.....
Coal .....	.....	.....	.....	2, 089, 202	.....	360, 710
Coffee .....	65, 682	.....	206, 116	.....	1, 266	.....
Cordage and rope .....	315, 772	209	134, 773	85, 124	9, 349	813
Cotton piece goods, printed and plain .....	4, 110, 100	.....	109, 667	.....	49, 404	.....
All other .....	56, 568	.....	13, 150	.....	1, 167	.....
Drapery, haberdashery, and mil- linery .....	23, 429, 483	.....	4, 840, 007	.....	57, 674	.....
Earthen, china, and stoneware .....	1, 124, 200	.....	191, 123	.....	2, 365	.....
Fish, cured and preserved .....	758, 810	.....	405, 817	67, 825	217, 693	.....
Floorcloth and oilcloth .....	256, 017	.....	16, 830	.....	3, 358	.....
Flour .....	19, 175	82, 682	3, 069, 584	2, 779, 447	40, 348	.....
Fruit, dried and green .....	914, 148	24	1, 161, 960	738, 929	55, 389	.....
Furniture and upholstery .....	911, 141	389	290, 597	138, 686	291, 727	.....
Gasfittings and lampware .....	362, 724	.....	22, 207	.....	25, 409	.....
Glass and glassware .....	1, 293, 341	.....	146, 958	.....	23, 335	.....
Gold .....	.....	696, 736	9, 964, 412	9, 933, 300	.....	.....
Grain and meal:	.....	.....	.....	.....	.....	.....
Barley and pearl barley .....	29, 783	1, 484	391, 495	172, 825	292, 166	.....
Maize and maizena .....	34, 002	.....	917, 788	741, 572	65, 245	.....
Oats and oatmeal .....	18, 177	4, 916	1, 027, 085	747, 952	4, 473	.....
Wheat .....	818	5, 866, 531	683, 285	742, 858	15, 193	.....
Rice .....	45, 151	.....	567, 078	.....	608	.....
All other grain and pulso .....	26, 926	.....	93, 909	36, 299	793	.....
Guano, bone, and bonedust .....	.....	181, 295	.....	117, 947	.....	.....
Hardware, cutlery, and grindery .....	5, 039, 582	.....	1, 234, 797	56, 018	865, 901	.....
Hops .....	235, 304	487	241, 470	128, 437	8, 156	.....
Hides and skins .....	.....	1, 336, 103	.....	673, 490	.....	.....
Horns and hoofs .....	.....	41, 803	.....	7, 280	.....	.....
Iron and steel, wrought and un- wrought, rails, and railway ma- terial .....	9, 231, 653	122	1, 046, 867	33, 199	99, 159	.....
Instruments:	.....	.....	.....	.....	.....	.....
Musical .....	788, 402	.....	213, 557	.....	120, 077	.....
Optical, scientific, and surgi- cal .....	216, 522	.....	41, 132	.....	5, 524	.....
Jewelry .....	702, 290	988	739, 850	22, 634	14, 084	.....
Jute goods, bags and sacs .....	416, 417	.....	575, 833	33, 559	10	.....
Lead, rolled sheet, pig, piping, &c .....	291, 294	.....	37, 117	.....	3, 358	.....
Leather, plain ware and other .....	955, 172	1, 426, 385	303, 679	842, 602	115, 876	511
Livestock .....	.....	1, 499	.....	5, 899, 892	.....	.....
Matches .....	472, 497	.....	119, 492	.....	.....	.....
Machinery and steam-engines .....	2, 050, 620	165	503, 903	212, 783	469, 120	.....
Machines, sewing and weighing .....	393, 991	.....	170, 336	.....	147, 168	.....
Malt .....	1, 239, 610	.....	149, 333	1, 557	1, 577	.....
Medicines, drugs, and chemicals .....	1, 270, 127	.....	316, 703	30, 625	167, 666	.....
Minerals, not otherwise specified .....	.....	4, 972, 471	.....	2, 400, 460	.....	100, 775
Nails and screws .....	495, 693	.....	51, 102	.....	28, 250	.....
Oars .....	1, 685	.....	2, 915	.....	9, 584	.....
Oil:	.....	.....	.....	.....	.....	.....
Kerosene and shale .....	3, 416	37, 185	198, 373	36, 781	772, 479	53, 697
All other .....	793, 503	173, 909	292, 666	10, 030	52, 262	.....
Oilmen's stores .....	885, 465	.....	233, 596	57, 780	24, 533	.....
Opium .....	4, 760	.....	209, 653	.....	.....	.....
Paint and painters' materials .....	781, 838	.....	70, 754	.....	19, 987	.....
Paperhangings .....	544, 075	.....	60, 267	.....	2, 560	.....

WHENCE AND WHERE TO.								Totals for Australasia.	
France.		Germany.		China and Japan.		Other countries.		Imports.	Exports.
Im-ports.	Ex-ports.	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
		\$63		\$49		\$350	\$234	\$1, 129, 339	\$101, 369
\$136		633		15, 622		71, 021	3, 012	191, 972	
		4, 609		1, 090		4, 570		7, 304, 731	921, 394
		41, 833				78	3, 723	401, 239	
							764	868, 450	58, 262
					\$39, 535	58, 345	1, 947	62, 175	356, 798
		17, 559		506		983	12, 780	3, 595, 706	41, 482
							52, 223		50, 281
2, 433				15					174, 280
146		842		6, 452		121, 098	618	62, 736	
		131		8, 196		27, 101	13, 169	5, 827, 199	199, 882
19		273		959		1, 051		4, 980, 910	472, 970
		18, 823		316		10		367, 934	16, 308
						808		1, 053, 850	
						784	2, 083	146, 478	
68		341		24		165, 398		827, 188	93, 111
					279, 293		697, 171	890, 483	
				68		267, 814			3, 426, 376
		15			234	12, 084	8, 823	540, 946	
								471, 993	95, 203
		253		365		49, 988		4, 319, 777	
				195		69, 586		140, 666	
8, 633		146		85, 377		192, 416		28, 613, 736	
		3, 342		6, 594		1, 782		1, 329, 386	
9, 923		24		23, 650		78, 937	54	1, 494, 854	67, 879
				68		97		276, 370	
				34	26, 660	1, 777	1, 687, 917	3, 130, 918	4, 576, 715
341		146		10, 585		25, 422	11, 140	2, 167, 991	750, 093
		12, 186		8, 103		5, 913		1, 519, 667	139, 075
		589						410, 929	
808		2, 064		1, 927		706		1, 469, 139	
				11, 558	600, 794	662	4, 185, 521	9, 976, 632	15, 416, 351
				15		681	44	714, 140	174, 353
				102		46, 081	2, 102	1, 063, 218	743, 674
							60, 617	1, 049, 735	813, 485
							633, 210	699, 296	7, 242, 599
		244		390, 537		568, 679		1, 572, 297	
				2, 146		24, 153	34, 878	147, 927	71, 177
			\$87, 597		54		109, 427		496, 320
351		2, 253		2, 263		16, 517		7, 161, 664	56, 018
		346					97	485, 276	129, 021
							497		2, 010, 090
									49, 083
195		3, 037		39		6, 209	555	10	

## STATEMENT SHOWING THE COMMERCE

Articles.	WHENCE AND WHERE TO.					
	Great Britain.		Intercolonial trade.		United States.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
Pearl shell.....		3, 650	251, 812	152, 273		
Photographic material.....	34, 941		11, 471		4, 102	
Pictures and paintings.....	239, 486	2, 711	118, 767	44, 008	18, 858	
Pitch, tar, rosin, and gum.....	38, 474	469, 471	25, 321	12, 040	35, 457	278, 481
Plate and plated ware.....	434, 729		88, 926		115, 609	
Preserves, jams, and jellies.....	162, 010	453	678, 303	569, 088	22, 882	
Provisions (animal and dairy produce).....	448, 984	1, 241, 347	1, 357, 220	730, 239	31, 974	438
Printing material.....	802, 510		107, 156		21, 301	
Pulu.....			501		12, 376	
Saddlery, harness, and materials ..	787, 219	24	252, 879	133, 834	34, 542	
Seeds and plants.....	497, 735	4, 224	189, 432	146, 919	67, 733	769
Silks.....	956, 915		48, 324		34	
Slates, stones, and marble.....	219, 585		114, 455	53, 147	74, 944	
Specie.....	846, 927	1, 790, 172	5, 638, 259	4, 087, 519	11, 227	
Spirits and liquors.....	4, 845, 525	20, 756	1, 223, 872	62, 058	81, 661	
Sugar.....	329, 297	63	3, 702, 072	2, 849, 098	15, 038	1, 713
Tallow and stearine.....		2, 672, 895		597, 435		
Telegraphic material.....	1, 865, 013		833, 633		38, 684	
Tea.....	24, 696		2, 231, 504			
Timber:						
Dressed and undressed.....	381, 765	27, 116	1, 009, 219	859, 975	722, 227	58
Other.....	12, 863	798	1, 223, 696	245, 116	54, 831	
Doors, sashes, and shutters....	6, 457		31, 306	12, 074	88, 409	
Shooks and staves.....	3, 709		40, 289		2, 979	
Tobacco:						
Leaf.....	13, 063		65, 630		28, 211	
Manufactured.....	127, 020		607, 266		769, 044	
Cigars and snuff.....	260, 826		214, 159		16, 599	
Toys and fancy goods.....	1, 350, 088		435, 868		37, 204	
Turnery and wood ware.....	158, 813	1, 056	65, 266	45, 808	175, 715	
Turpentine and varnish.....	183, 828		32, 844	9, 903	70, 666	
Wines.....	1, 175, 755	17, 977	409, 113	104, 440	1, 148	
Wool.....		61, 021, 313	15, 728, 835	18, 869, 260		1, 279, 486
Woolen and worsted goods.....	3, 246, 938	146	213, 522	92, 799	3, 713	
All other articles the product and manufacture of other countries or colonies.....	7, 438, 821	13, 919, 371	15, 722, 844	22, 900, 721	352, 193	68, 855
Totals.....	107, 857, 339	96, 205, 926	89, 050, 662	83, 085, 297	7, 955, 234	2, 146, 905

## OF AUSTRALASIA FOR 1879—Continued.

WHENCE AND WHERE TO.								Totals for Australasia.	
France.		Germany.		China and Japan.		Other countries.		Imports.	Exports.
Im-ports.	Ex-ports.	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.		
								251,812	155,925
						73		50,587	
307		1,465		5,460		9,699		394,042	46,719
						8,341		107,593	759,992
122						27,455		666,841	
		78		27,500		910	2,097	891,683	571,638
	243	2,940		12,381	15,534	5,981	265,444	1,859,480	2,253,245
						1,416		932,383	
						3,314		16,191	
				39		613	15,743	1,075,292	149,601
	34	82		1,178		16,819	2,438	772,979	154,384
				11,631		104,381		1,121,285	
146							195	409,130	53,342
					285,819	891,670	3,827,040	6,888,083	9,990,550
639,837		36,042		13,558		26,080	27,233	6,866,575	110,047
584				405,885		9,636,717	9,485	14,089,593	2,860,359
					954		14,395		3,285,679
				24		9,656		2,247,010	
				4,885,606		70,297		7,212,108	
1,825		1,212		54		1,200,720	109,097	8,317,022	996,246
		336			103,364	11,514	61,829	1,303,240	411,107
							39	126,172	12,113
		10				5,076		52,063	
						2,997		109,901	
		365		11,642		2,234		1,517,571	
		24,712		69,967		86,119		672,382	
4,414		4,773		35,155		50,617		1,918,119	
73		10,210		3,757		2,126		415,960	46,864
								289,338	9,903
23,243		2,068		5,363	273	15,928	7,738	1,632,618	130,428
					38,932		1,922	15,728,835	81,210,913
68				277		16,298	78	3,480,816	93,023
1,560	74,575	14,553	25,282	421,086	237,742	1,053,226	3,497,761	25,004,283	40,724,307
702,883	74,852	253,964	112,879	7,008,326	1,633,061	17,100,127	15,867,739	229,928,535	199,126,659

O. M. SPENCER.

**MANUFACTURES, SHIPPING, AND COMMERCE OF RUSSIA.***REPORT BY CONSUL-GENERAL STANTON, OF ST. PETERSBURG.*

Herewith I have the honor to transmit four brief, though interesting, reports which recently appeared in the *St. Petersburg Zeitung*.

The first shows that in 1879 Russia's manufactories, exclusive of breweries, distilleries, tobacco and sugar factories, produced wares to the value of 909,000,000 roubles, the total number of the factories being 27,927, employing 685,245 laborers.

The most important manufacturing centers were the governments of Moscow, St. Petersburg, Vladimir, Piotrkoff, and Warsaw, all of whose manufactures exceed 25,000,000 roubles annually; the productive value, annually, of a Russian factory hand being 1,311 roubles, that of a polish factory hand, 1,445 roubles.

The second furnishes a brief statement of Russia's international navigation in 1878 and 1879.

According to this report Russia has about 52,000 versts of internal water-ways, which are open from six to ten months in the year.

In 1879 6,353 boats were built, which is a decrease of 24 per cent. on the average of the five years from 1873 to 1877, the greatest number having been built in the Caspian, and the smallest in the Black Sea basin.

In 1878 there were 820 steamers plying on Russian inland waters, 471 of which were built in that country. They are almost entirely boats of small power and slight draught.

The greatest traffic was on the Volga, between the mouths of the Oka and Kama rivers, where 418 steamers plied.

The average value of the rafts and cargoes transported during the six years, 1873 to 1878, was 181,001,106 roubles, and the average ships' dues collected during the same period was 645,992 roubles.

The inclosure No. 3 shows the imports and exports of St. Petersburg during the first open sea-months of 1880 and 1881, the former showing an increase of 1,973,857 roubles, the latter a decrease of 1,174,962 roubles, or about 1.3 per cent. and 6.3 per cent., respectively.

The last inclosure treats of Russia's sanitary statistics in 1878 and 1879.

According to this report, of the boys born in 1858 but 47.8 per cent. attained their twenty-first year, and but 37.6 per cent. were healthy, whilst of those born in 1857 49.3 per cent. attained their twenty-first year, and 40 per cent. were healthy.

In 1879 infectious and contagious diseases were extremely prevalent, small-pox increasing from 10.28 per cent., cases in 1877 to 89.156 cases in 1879.

EDGAR STANTON,  
*Consul-General.*

CONSULATE-GENERAL OF THE UNITED STATES,  
*St. Petersburg, August 22, 1881.*

[Inclosure 1 with dispatch No. 22.]

RUSSIA'S MANUFACTURES IN 1879.

According to the latest official statements, the product of Russia's manufacturing industries, in 1879, with the exception of those subject to an excise duty, viz, breweries, distilleries, tobacco and sugar factories, represented a value in round numbers of 909,000,000 roubles. This production is the work of 27,927 factories and 685,245 laborers, who participate as follows:

	Factories.	Hands.	Value of pro- duction.
			<i>Roubles.</i>
Russian governments.....	22, 321	607, 677	797, 000, 000
Vistula (Polish) governments.....	5, 606	775, 568	112, 063, 900
Total.....	27, 927	685, 245	909, 063, 900

The most productive governments were:

	Factories.	Hands.	Value of pro- duction.
			<i>Roubles.</i>
Moscow .....	1, 527	162, 701	190, 494, 200
St. Petersburg .....	741	76, 833	155, 746, 100
Vladimir .....	458	81, 861	83, 743, 200
Piotrkoff .....	1, 979	35, 622	60, 410, 910
Warsaw .....	385	24, 516	30, 914, 800
Kiev .....	306	6, 838	24, 444, 300
Tver .....	454	20, 538	22, 108, 700
Kostroma .....	885	21, 494	20, 270, 500
Liefland .....	285	12, 840	20, 106, 400
Charkoff .....	435	8, 141	19, 706, 400

The least productive governments were:

	Factories.	Hands.	Value of pro- duction
			<i>Roubles.</i>
Taurus .....	138	372	204, 600
Lomsha .....	50	295	502, 300
Suvalki .....	120	404	684, 700
Olonets .....	319	1, 609	952, 000
Vilna .....	91	1, 024	1, 146, 000
Kofua .....	151	891	1, 161, 500
Courland .....	94	2, 625	1, 257, 600
Moh-leff .....	174	1, 393	1, 316, 300
Don Cossack .....	163	1, 654	1, 405, 400
Radour .....	148	1, 224	1, 652, 300

In Russian governments the average productive value, annually, of a laborer is 1,311 roubles, in the Vistula (Polish) governments, 1,445 roubles.

[Inclosure 2 with dispatch No. 22.]

RUSSIA'S INTERNAL NAVIGATION IN 1878 AND 1879.

The total length of Russia's water-ways, natural and artificial, amounts to about 52,000 versts.

The majority of these water-ways were in 1879, as also in the preceding year, open to navigation from six to ten months; the shortest period, 182 days, being at Archangel; the largest, 293 days, at Astrakhan. On the whole, navigation opened in 1879 a

little later than in 1878, but earlier than in 1877; and closed earlier than in either of the preceding years.

For internal navigation there were built the following:

Years.	Number of boats.	Number costing more than 50 roubles each.
1879.....	6,353	5,341
1878.....	7,283	6,261
1877.....	7,267	6,442
1876.....	9,315	7,825
1875.....	9,033	7,425
1874.....	8,548	6,808
1873.....	7,939	6,451

The average number built during the five years, 1873 to 1877, was 8,420, of which 6,990 represented a value of more than 50 roubles each.

Compared with the average for the five years, 1873 to 1877, the ship-building of 1878 shows a decrease of 13 per cent.; that of 1879 of 24 per cent.

The number of boats built, and representing a value of more than 50 roubles each, is divided as follows among the following districts, viz:

Years.	White Sea.	Baltic Sea.	Black Sea.	Sea of Azof.	Caspian Sea.
1879.....	253	1,475	318	278	3,017
1878.....	254	1,547	353	253	3,874
1877.....	287	2,066	183	147	3,759
1876.....	299	1,768	191	260	5,307
1875.....	483	1,751	277	329	4,585
1874.....	197	1,714	237	312	4,348
1873.....	248	1,853	308	260	3,775

From this table it will be seen that in the district of the Caspian basin ship-building is best developed, being, during the five years 1873 to 1877, 62 per cent. of the whole amount built; the Baltic basin takes the second position, with 26 per cent., whilst the White, Azof, and Black Sea basins participate, respectively, with but 4½, 4, and 3¼ per cent.

In 1878, among the vessels plying on the internal waters of Russia were 820 steamers, of which 148 were passenger, 72 passenger and freight, 55 ton and passenger, 22 freight, 501 ton, and 22 various steamboats. Of these steamboats 38 belonged to the government municipalities, 265 to steamboat companies, and 517 to private persons: 67 were built previous to 1855, 208 between 1855 and 1860, 109 between 1860 and 1865, 186 between 1865 and 1870, 114 between 1870 and 1875, 75 between 1875 and 1878; of 61 the age could not be ascertained. Of these steamers 471 were built in Russia, 23 in Finland, 102 in Great Britain, 84 in Belgium, and 86 in other European countries: of 54 the builders could not be ascertained; 662 were built of iron, and 111 of wood.

Sixty-nine steamers had machinery of 20 horse-power and less, 78 of 20 to 30 horse-power, 101 of 30 to 40 horse-power, 79 of 40 to 50 horse-power, 125 of 56 to 60 horse-power, 36 of 60 to 70 horse-power, 93 of 70 to 80 horse-power, 16 of 80 to 90 horse-power, 55 of 90 to 100 horse-power, 514 of 100 to 200 horse-power, 7 of 200 to 300 horse-power, 4 of 300 to 400 horse-power, and 3 of 400 to 480 horse-power.

Sixty-six steamers had a draught of 2 feet and less, 108 of 2 to 2½ feet, 200 of 2½ to 3 feet, 218 of 3 to 4 feet, 57 of 4 to 5 feet, and 97 of 9 to 14 feet.

Five hundred and seven steamers plied in the basin of the Caspian Sea, 210 in the basin of the Baltic Sea, 49 in the basin of the Black Sea, 43 in the basin of the Sea of Azof, and 11 in the basin of the White Sea.

The greatest traffic was on the Volga, between the mouths of the Oka and Kama Rivers, where 418 steamers plied; the next most important was between the mouths of the Ichessua and the Oka, where 350 steamers plied.

The following table exhibits the total number and value of vessels' draughts, plying on Russia's internal waters during the last 6 years:

Years.	Number of freighted sels.	Number of rafts.	Value of car- goes and rafts.
			<i>Roubles.</i>
1878.....	54,000	88,821	179,862,961
1877.....	47,423	95,704	167,129,681
1876.....	47,933	80,995	186,212,432
1875.....	46,496	86,620	186,429,565
1874.....	48,193	95,042	179,969,412
1873.....	51,816	91,972	192,912,567

The freight transported in 1878 on Russia's internal waters consisted of:

Articles.	Quantity.	Value.
	<i>Poods.</i>	<i>Roubles.</i>
Merchandise.....	189,346,942	158,912,722
Firewood.....	158,962,315	4,040,178
Coal.....	899,729	115,667
Lumber.....	58,024,245	4,578,786
Building materials.....	71,034,461	3,946,199
Various.....	40,877	87,068

The following is the total of ships' dues collected:

	<i>Roubles.</i>
1879.....	682,147
1878.....	581,261
1877.....	572,228
1876.....	609,854
1875.....	655,584
1874.....	660,350
1873.....	696,678

[Inclosure 3 with dispatch No. 22.]

Comparative statement of St. Petersburg's imports and exports during the first six months of 1880 and 1881.

Articles.	Imports in 1881.	Imports in 1880.	Exports in 1881.	Exports in 1880.
	<i>Poods.</i>	<i>Poods.</i>	<i>Poods.</i>	<i>Poods.</i>
Wheat.....	101,973	696,134	107,107	15,263
Rye.....	5,833,639	9,812,445	226,500	461,360
Oats.....	11,015,496	14,022,159	412,361	274,445
Barley.....	542,927	935,283	98,650	20,483
Buckwheat groats.....	966,632	1,420,022	130,474	143,702
Millet.....	218,251	181,636	40,424	37,044
Wheat flour.....	1,901,454	2,051,626	487,357	499,804
Rye flour.....	3,050,029	3,091,458	1,034,444	1,654,150
Pease.....	352,849	145,373	25,482	25,222
Spirits.....	1,105,052	717,532	130,197	111,923
Leaf tobacco.....	115,688	155,506	60,482	49,803
Tea.....	57,700	56,798	82,453	70,912
Sugar.....	420,360	888,236	8,462	25,306
Sugar, refined.....	44,565	53,089	187,318	181,532
Meat.....	56,893	572,585	56,027	47,660
Butter.....	80,934	115,391	29,578	11,001
Fish.....	310,295	307,581	97,382	119,032
Herrings.....	154,647	53,011	112,691	74,022
Salt.....	160,971	80,926	156,106	80,345
Linseed.....	1,911,016	2,182,060	8,185	4,633
Flax.....	1,346,109	1,716,363	196,812	182,201

*Comparative statement of St. Petersburg's imports and exports, &c.—Continued.*

Articles.	Imports in 1881.	Imports in 1880.	Exports in 1881.	Exports in 1880.
	<i>Poods.</i>	<i>Poods.</i>	<i>Poods.</i>	<i>Poods.</i>
Hemp.....	351,835	365,808	17,259	23,445
Cotton.....	381,911	433,785	49,062	49,072
Wool.....	79,892	36,537	19,374	34,083
Hides.....	24,984	53,723	43,990	58,125
Leather.....	75,671	96,606	83,720	79,613
Tallow.....	71,752	89,300	52,757	39,976
Cast iron.....	87,686	52,120	226,859	254,880
Wrought iron.....	819,876	371,045	478,454	413,526
Steel.....	60,053	36,355	11,027	15,540
Iron wares.....	369,481	334,684	686,673	895,508
Rails.....	567,667	437,703	943,691	2,693,557
Naphtha.....	26,564	1,990	645	5,756
Petroleum.....	293,826	85,633	58,783	58,123
Naphtha residue.....	27,292	6,601	1,213	2,176
Coal.....	102,637	56,512	1,683,270	2,000,063
Firewood.....	41,965,488	37,446,059	30,026	40,140
Timber.....	3,535,159	3,896,891	989,061	661,036
Building materials.....	26,884,249	21,956,381	463,814	533,446
Hay and straw.....	1,075,820	674,632	21,815	2,227
Various wares.....	8,412,997	7,808,399	7,104,382	5,844,849
Total.....	114,991,760	113,017,903	16,626,372	17,801,334

There were also imported into this city in 1881, horned cattle, 61,716; calves, sheep, swine, &c., 23,625; and in 1880, horned cattle, 59,017; calves, sheep, swine, &c., 41,617; and exported in 1881, horned cattle, 146, calves, sheep, swine, &c., 224, and in 1880, horned cattle, 224, calves, sheep, swine, &c., 1,200.

The rafts imported represented in 1881 a value of 98,938 roubles, against 96,793 roubles in 1880.

[Inclosure 4 with dispatch No. 22.]

## RUSSIA'S SANITARY STATISTICS FOR 1879.

The report of the department of medicine for 1879 contains numerous and interesting statistics, of which the following figures are particularly noteworthy as exhibiting the sanitary condition of the Russian people in 1879 as compared with 1878.

Of 1,568,315 boys born in 1858, there were, twenty years later, but 760,622 living. Of these 272,974 were examined by the staff physicians at the time of their enlistment. Out of this number 58,824 youths, or 21.5 per cent., were afflicted with one or the other disease; 9,686, or 16.4 per cent., suffered from malformation, hereditary diseases, or partial development of body and nerves; 40,957, or 69 per cent., suffered from neglect during infancy and faulty treatment of previous diseases; 8,181 suffered from varicose veins, syphilis, stone, cancer, dropsy, &c.

These figures exhibit the sad fact, that of 1,568,315 boys born in 1858, but 47.8 per cent. attained their twenty-first year, and but 37.6 per cent. were perfectly healthy.

In 1879 infectious diseases were entirely prevalent as shown in following table:

Diseases.	Cases.	Deaths.
Small-pox.....	89,156	25,574
Scarlet fever.....	22,242	4,971
Diphtheria.....	83,275	33,815
Typhoid.....	80,112	8,073
Dysentery.....	9,139	621
Syphilis.....	169,117	939

The small-pox has not only increased, but has become dangerous. In 1877 there were 10,287 cases, of which 25.6 per cent. terminated fatally; in 1878, 48,341 cases, of which 26.6 per cent. died; in 1879, 89,156 cases, with a mortality of 28.4 per cent.

An interesting and exhaustive chapter of the report is devoted to the vetlyauka, pest, which has now, however, only an historical interest.

Truly dreadful, and, if possible, more disquieting than the progress of the diphtheria, which ravages chiefly among children, is the spread of the syphilis. This disease, by nature permanently contagious and hereditary, finds in the immorality, and the imperfect development of the people, the most fruitful soil, and poisons not only the present, but generations to come. The existing means of combating the disease has proved utterly insufficient; hence it is natural that the report should advocate exceptional laws for controlling the syphilitics, whose number was recently stated to be more than 1,000,000, with an annual increase of 20,000, and who, the report states, require, in the interest of the community at large, extraordinary legal attention as urgently as those persons suffering from insanity.

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## CHINA GRASS MANUFACTURE IN GERMANY.

REPORT BY CONSUL LINCOLN, OF STETTIN.

I have the honor to invite your attention to the inclosed translation of a paragraph appearing in this morning's edition of the Ost See Zeitung, of this city, giving an account of the starting of an establishment in Zittau (Saxony) for the purpose of manufacturing a thread from China grass.

GEORGE F. LINCOLN,  
Consul.

UNITED STATES CONSULATE,  
Stettin, July 16, 1881.

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[Inclosure 1 in No. 28.—Translation.]

### CHINA GRASS MANUFACTURE.

The "Manufacturer" reports:

Lately in Zittau (Saxony) has been started an establishment under the title of the "First German China Grass Manufactory," at present the only one of the kind on the entire continent of Europe, which produces from the fiber of the Chinese nettle stalks a beautiful, silky, glossy thread in heavy and fine numbers, which dyes handsomely in every possible color and shade, bleaches a brilliant white, and is remarkable for its strength.

China grass is already used as a substitute for silk and wool in various branches of manufacture of woven and spun goods, fringes, laces, and fancy articles, and will probably in time be developed in many departments of textile industry, where at present it is wholly unknown.

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[Appendix to the foregoing report.]

### CHINA GRASS AND CHINA MATTING.

In connection with the foregoing report on the manufactures of thread from China grass, the following report by Consul Lincoln, of Canton, published in Commercial Relations for 1879, on the manufacture of matting in China, from the planting of the grass until the same is woven, will prove interesting:

The manufacture of matting is confined almost exclusively to Southern China, and is one of the very important industries of this section. This article of trade is not alone confined to floor-matting, so much of which is used in the United States, but enormous quantities are used as sails on all native sailing craft, being much cheaper, and in this climate equally if not more durable than the ordinary canvas or sail-cloth.

Large quantities are also used as covering for boxes and packages in which tea, sugar, cassia, &c., are exported, also in making money-bags, it being a very conven-

ient mode of handling dollars, especially when broken up into small pieces by the constant stamping or "chopping" of the dollars, as is the custom in this portion of China.

The plant, used in making mats, sails, &c., so extensively used in China, is known as "aquatic grass," also as "rush." It is cultivated extensively in the Shuibing department, on the West River, some seventy-five miles in the interior from Canton. I have visited this place twice, where I saw large quantities being grown, in fields flooded with water, as is done in rice cultivation.

It requires very little if any care in its cultivation, as it propagates itself by shoots from the root, and attains a height of from six to eight feet. It is brought to market in bundles of about twelve inches in diameter, and if of proper length and good quality sells at from 18 to 24 cents per bundle, each being sufficient to make four bed-mats, or six such as are used in making sails.

The district of Tung Kuan produces large quantities of this grass, but of a species used almost entirely in the manufacture of floor-matting. It is grown in fields similar to the other, but where it is overflowed and left dry by the flooding and ebbing of the tide.

It is said to grow better in the vicinity of salt water, where the water flooding it is somewhat brackish. It is planted usually in the month of June, from slips. These are allowed to grow for about two months, when they are replanted in rows. The soil should be fertile, and is usually made so by manuring with bean cake. It requires nearly one year to mature, when it is cut; the shoots or straws are split in two with a knife, and, when partially dried in the sun, packed in bundles as described, and either manufactured into matting at the city of Tung Kuan or brought to Canton, where there are several extensive manufactories.

The planting of slips is only required once in four or five years, as they send up fresh shoots similar to the sugar cane described in a former dispatch. If not replanted every four or five years they become coarse and unfit for use.

I recently visited one of the largest manufactories here, owned by a Chinese firm, Choey Sun, whose brands are well known to dealers in the United States, and as the *modus operandi* of drying, weaving, &c., observed by me there may be of interest, I will say: The grass when brought to the manufactory is carefully sorted, the perfect being used in manufacturing the finest and the other, poorer quality.

After being thus sorted it is made into bundles of two or three inches diameter and placed in large earthenware jars holding some ten gallons of water; several hundred of these were standing in an open yard. It is allowed to remain thus in soak for three days, when it is taken out and dried in the sun for one day. If to be dyed the ordinary red color, which has been for years much in vogue, it is then placed in other similar jars containing a liquid dye, made by soaking red sapan wood chips in water. (Boiling extracts the coloring matter more rapidly.) It remains in these jars for five days, then dried one day, then immersed in the dye again for three days, when it is usually ready for use; but if the color is not sufficiently deep it is again placed in the dye for two or three days.

It is only within the past two or three years that other colors, such as green, yellow, and blue, have been used to any extent, the impetus having been given by the introduction of chemical dyes, the usefulness of which the matting makers seem to fully appreciate.

The solution for coloring yellow is produced from the seeds and flowers of a plant common to China "hni fä." A yellow coloring matter is also made by boiling for several hours twenty-five pounds of *Sophora japonica* in one hundred gallons of water and adding, when cooled, one pound of alum to each ten gallons of the solution.

Green and blue are produced from the twigs and leaves of the "lamiyip" or blue plant, which grows in abundance near Canton. To the solution thus produced a small quantity of chemical dye is now usually added. In dyeing these colors the straw is soaked in water for seven days, and then immersed in the coloring matter for a few hours only, the solution being hot. When the vegetable dye alone is used, a longer process, similar to that for dyeing red, is necessary.

Fifty looms were being worked at this manufactory, eight of which were large and forty-two small. The large ones are exactly the same as the ordinary silk loom, and are used in making the very wide and also the damask or carpet patterns. Three men are required to work each of the large looms, their wages being from thirty to forty cents each per day. Eight yards of matting from each loom is considered an average result of a day's work. The small looms are certainly rude and simple, each being worked by two small boys, who are paid from fifteen to twenty cents per day each, and who daily weave five yards of most perfect matting of the more ordinary patterns.

The loom is composed of two uprights, driven into the ground about five feet apart, and about four feet in height; two cross-bars fit into sockets in the uprights, one at the top, the other about eight inches from the ground. The warps, which are strings of Chinese hemp (2½ yards in length), are then passed over the upper and round beneath the lower cross-bar, through the holes in the weaving-bar, and being drawn

taut, are fastened by both ends to a long, thin piece of bamboo placed parallel with and just below the lower cross-bar.

The weaving-bar and most important part of the loom consists of a piece of wood varying in length according to the width of the matting required and about two inches square; through this small holes are pierced at different intervals, into which the warps are passed as stated; the bar can thus be worked up and down in the warps by means of handles near the extremities. These holes vary in distance from each other, according to pattern desired. Alternately on top and bottom the holes are enlarged or formed into slots converging at the center of the stick. When the warps have thus been arranged and bundles of different colored straw, sufficiently dampened, deposited near the loom, one of the boys raises the weaving-bar to the top of the warps, tipping it forward, the slots in the bar allowing the alternate warps to remain perpendicular, the holes carrying the others forward, thus separating them sufficiently to admit of a single straw being passed between them. This is done by means of a long, flat piece of bamboo, a notch being cut near the end, into which one end of the straw is placed and then used as a shuttle. When the bamboo is withdrawn the weaving-bar descends, carrying the straw to the bottom; the bar is then raised again and tipped down, thus carrying the warps backward which had just before been passed forward, the work of the shuttle being repeated. As the weaving-bar presses the straw down, the weaver gives the ends of the straw a half turn round the outside warps, the operation as described being repeated until the warps are full, the edges are trimmed, the warps untied, the matting (now two yards in length) removed, and a new set of warps put on.

The matting thus woven is then dried in the sun and over a slow fire.

The shrinkage consequent on this drying is nearly four yards in forty. When dried it is stretched on a frame and worked down tight by hand, then sent to the packing-house, where numerous men are engaged in fastening the two yard lengths together, it requiring twenty lengths to make the ordinary roll. The fastening together is done by taking the projecting ends of the warps of one piece, and, by means of a large bamboo needle, passing them back and forth through the reeds of another piece, in fact sewing them together. Each roll of forty yards is then nicely covered with a coarse, plain, straw mat, marked and numbered ready for shipment.

## NOTES.

**French Wheat Crop of 1881** (given to the press October 3).—United States Consul Roosevelt, under date of Bordeaux, August 26, 1881, reports that according to published accounts regarding the wheat crop of France, it appears the crop has been very good in three departments, fair in twenty-three departments, middling in twenty-four departments, and bad in ten departments.

The maximum yield counted upon will be about 294,000,000 bushels. The quantity necessary for the consumption of France is about 352,000,000 bushels; there will therefore be a deficit of about 58,000,000 bushels, which will have to be imported from other countries.

The largest portion of the importation will be from the United States, the crops of England, Germany, and Austria being far from what was expected. In Algeria the crop is in a deplorable condition.

The deficit of the crop in France has been attributed to the excessive heat during the months of June and July.

**The Crops of Europe** (given to the press October 5).—The condition of the crops in Europe at the close of August, 1881, according to a report received at the Department of State from Consul Byers, of Zürich, Switzerland, were estimated as follows:

## WHEAT CROP.

*Above the average.*—Austria, Franken and Swabia (Bavaria), and both Upper and Lower Bavaria.

*Average.*—Moldau (Roumania), Padolin, Cherson, and Saratow (Russia), Denmark, Silesia, Saxony, Switzerland, the Netherlands, and Great Britain and Ireland.

*Below the average.*—Hungary, Servia, Courland, and Esthland (Russia), Sweden and Norway, Mecklenburg, Prussia, Hanover, Rhine Provinces, Pfalz (Bavaria), Italy, and France.

The Danube district in Wallachia only promises half of last year's crop, and the crop in the Wallachian district of Roumania, and in Bessarabia (Russia), and Schleswig-Holstein is much below the average. There is total failure of wheat in Tutova-Covurlui (Roumania), and only 40 per cent. of the average in Little Wallachia. Middle Russia gives promise of a wheat crop much above the average.

## RYE CROP.

*Above the average.*—Austria and the Russian provinces of Bessarabia, Padolin, Cherson, and Esthland. Middle Russia is much above the average, and the Rhine Provinces, Bavaria, Wurtemberg, the Netherlands, and Great Britain and Ireland may be said to promise a yield above the average.

*Average.*—Hungary, Moldau (Roumania), and the Russian provinces of Saratow, Livnij, Tambow, and Smolensk, Denmark, Mecklenburg, Silesia, Saxony, and Switzerland.

*Below the average.*—Servia, Sweden, and Norway, Prussia, Schleswig-Holstein, Hanover, Pfalz (Bavaria), and Eastern Italy.

## BARLEY.

*Much above the average.*—Franken and Swabia (Bavaria).

*Above the average.*—Silesia and Cherson (Russia).

*Average.*—Little Wallachia and Moldau (Roumania), the Russian provinces of Saratow, Livnij, Tambow, and Smolensk, Denmark, Mecklenburg, Prussia, Rhine Province, Saxony, Wurtemberg, and the Netherlands.

*Below the average.*—Hungary, Servia, the Russian provinces of Bessarabia, and Courland, Sweden, and Norway, Hanover, Upper and Lower Bavaria, and Pfalz, Sweden, and East Italy.

## OATS.

*Much above the average.*—Padolin, in Russia.

*Above the average.*—Tutova-Covurlui, and Moldau in Roumania, Bessarabia, and Middle Russia, and Silesia.

*Average.*—The Russian provinces of Cherson, Livland, Tambow, Smolensk, and Esthland, Denmark, Prussia, Schleswig-Holstein, Saxony, Franken, and Swabia (Bavaria), Wurtemberg, and the Netherlands.

*Below the average.*—Hungary, Servia, Wallachia District in Roumania, (a little over one-half crop), Courland, Hanover, Rhine Province Upper and Lower Bavaria and Pfalz, North, East, and South Italy, and Great Britain and Ireland.

## POTATOES.

*Much above average.*—Schleswig-Holstein and Switzerland.

*Above average.*—Sweden and Norway, Silesia, Great Britain and Ireland, and Esthland (Russia).

*Average.*—Hungary, Austria, Denmark, Prussia, Hanover, Saxony, Upper and Lower Bavaria.

*Below average.*—Rhine Province, Wurtemberg, and North Italy; this latter is much below the average.

## CORN.

*Above average.*—Servia, Wallachia District, and Tutova-Covurlui in Roumania, Moldau and Cherson (Russia), and North Italy are much above the average.

*Average.*—Austria-Hungary.

*Below the average.*—Little Wallachia (Roumania) and Italy.

## BUCKWHEAT.

*Above the average.*—Bessarabia and Middle Russia.

*Below the average.*—Schleswig-Holstein.

**Hop and Tobacco Crops in Germany and Austria** (given to the press October 3).—Under date of August 26, 1881, Consul Horstmann, of Nuremberg, sends to the Department of State extracts from the report of Emil Reckendorfer, who says that—

The most reliable reports give the hop crop as follows: For Bavaria, an average of a strong half crop. Kinding good. The Hallertau good three-quarters, the lands about Mainburg and Au being best; about Hessbruck, Lauf, Altdorf, Aisch, Bamberg, and Forchheim are backward, with weak half crops; towards the mountains the crop promises a good half. In Austria: Saaz counts on a good two-thirds crop;

Auscha and Dauba, a strong quarter; Steyermark, Upper Austria, and Galicia, at most one-third of a crop. Wurtemberg, a bare half, with the mountain districts best. In Baden a good half, mountain districts best. Alsace, a scant half. Lorraine, early hops are weak; late hops, a good half crop expected. Posen, a half crop, and Altmarkt only a third. From the foregoing it is evident that the general yield will average a good half crop, which will give a large amount for exportation.

Consul Horstmann states that since the above report was made a hail-storm, more severe than had ever before been known, had occurred both in Germany and Austria, and it is feared has seriously injured both the hop and tobacco crops. In Nuremberg it came down for nearly three-quarters of an hour like sheets of ice, the hail varying from the size of a hickory nut to a hen's egg, some being nearly 3 inches in diameter, and weighing  $6\frac{1}{2}$  ounces. Great damage was done to buildings in breaking glass, and even tiles and inside Venetian blinds, on the weather side.

But few sales of hops have as yet been made, the highest from Steyermark at 44 to  $49\frac{1}{2}$  cents, the lowest at 30 to 39 cents per pound. Last year's hops, 19 to 24 cents, prime 26 cents; inferior qualities not asked for.

**English Second-hand Machinery for the United States.**—In a recent report by Consul Shaw, of Manchester, reference is made as follows to the exports of second-hand machinery to the United States:

The general condition of the manufacturing interests here remain about the same as it has been for some time past. There is very active competition and prices rule low.

Manufacturers complain of inadequate profits and the ever-increasing barriers which foreign nations are raising against the free introduction of their goods.

A considerable quantity of machinery continues to be shipped to the United States. The large amount of second-hand machinery now on sale here, of almost every kind—owing to the dullness of trade—enables purchasers of this class of machinery from the United States to secure good bargains, and they are taking advantage of the present state of things to secure needed plant.

This is a rare time to purchase machinery of this class, much of which is in good order, and all of which will be sold at a very large reduction from the cost price. This arises from the fact that the market for machinery here is overstocked, and few new mills, comparatively, are being erected. Besides the keen competition among manufacturers here leads to the adoption of the latest and best inventions, and numerous second-hand machines of various kinds are thus thrown upon the market, so as to make way for the very latest improvements.

**The Locusts in Venezuela.**—Under date of July 25, 1881, Consul Plummer, of Maracaibo, writes as follows:

From accounts received from several quarters of this consular district, and particularly from the Goajira Peninsula, the condition of the people is indeed deplorable. Crops have been entirely destroyed, the animals are dying for want of food, and hunger is severely felt among the population.

Among the Goajira Indians the effect of this calamity has been especially disastrous, and they, made desperate by famine, are invading the neighboring settlements, robbing whatever food may fall in their way, and not hesitating to use violence to accomplish their purpose.

Troops have been sent to protect the frontier, and serious trouble may possibly ensue. It is said that these Indians are actually starving to death.

Means will be taken by the government to extend them relief, to which end additional taxes have been decreed by the State authorities, and the exportation of any article of food will be strictly prohibited. This will apply particularly to maize, which, with plantains, forms the principal food of the people of this section.

Some measures must be taken, or the Goajira Peninsula will either be depopulated or its inhabitants will make an organized invasion of the neighboring country.

An idea of the misery there prevailing may be formed from the fact that mothers visit the frontier settlements imploring the purchase of their children, saying, "We are literally dying of hunger."

In many parts the ground is covered with a thick layer of dead insects, whose putrefaction will soon spread deadly disease among that unfortunate people, and also en-

danger Maracabio and its vicinity. In this city the locusts have disappeared, though their dead bodies and larvæ are still being daily collected, the government, aided by various citizens, paying a reward for all that may be brought to the authorities. As much as 8,000 pounds have been collected in one day.

To add to the calamities caused by the ravages of the grasshoppers, the terrible drought of so long duration, and which still continues, has increased incalculably the misery existing in this part of Venezuela. In Paragnana and other parts of this consular district the grass and crops have been entirely dried up and destroyed, many cattle have died, and it is no exaggeration to say that there exists an absolute famine.

The drought this year is particularly severe, and some rivers are now without a vestige of water. In Maracaibo, where the population is entirely dependent upon the rain for its supply of drinking water, there is considerable distress, the cisterns being nearly exhausted; and as the poorer classes are compelled to drink the semi-saline water of the lake, they are in consequence suffering greatly from dysentery and other stomachic complaints.

This is a sad year for this section of the country, and it is safe to say that Venezuela has never before experienced such a visitation. I will take care to keep the Department duly informed as to any new facts relative to this sad condition of affairs.

**German Petroleum.**—Under date of August 1, 1881, Consul Du Bois, of Aix-la-Chapelle, writes as follows concerning the new petroleum wells near Hanover:

During the year 1879, the United States exported to Germany over \$10,000,000 worth of petroleum. In the light of new developments this immense trade seems to be seriously imperiled. At a small village called Peine, which is situated about 25 miles from the city of Hanover, a flowing well of petroleum was discovered about ten days since that delivered 1,250 barrels in 168 hours, two-thirds of which is good oil and one-third water, with a salt element of 2 per cent. This product renders in refining 45 per cent. of clear petroleum, which compares favorably with the best oil from the Pennsylvania region.

The following is the geological condition of the soil: At the depth of 10 inches a fine sand with some granite and flint stone were found; 7 meters deeper a grayish-blue deluvial clay, and at 3 inches more blue clay and limestone; from 20 to 35 meters, marl clay in great abundance; 35 to 40 meters, solid rock with quartz; and from 40 to 48 meters, hard sandstone with sulphurous pyrites—at this point the first traces of petroleum are found; from 48 to 54 meters, a layer of sandy clay which contains strong elements of petroleum. From this point to the depth of 69 meters, where the flowing well was struck, there are different conditions, such as pourous sandstone, black and brown sand, and large quantities of pebble-stones.

Six companies are already at work. The excitement is running very high, and the region has taken the name of "New Pennsylvania."

Of course, if the hopes of Germany are realized, there will be a strong competition with the American petroleum, which to-day lights a vast majority of German houses, and the export of our petroleum will seriously diminish. This being the case, there are a few facts which our producers should earnestly consider.

The burning test of American oil must be 110° Fahrenheit. This is a fixed standard and will be maintained by German experts, who will hereafter exercise the utmost vigilance in view of the immense interest centered in the home production. The oil must be of the very best quality. Petroleum reduced to a second or third grade by the extraction of the illuminating property must not be sent here to compete with the German product, which is said to be of an excellent quality.

Until now but one important flowing well has been developed, and as the oil region is not very extensive, compared to the great oil territory of the United States, the Pennsylvania petroleum may maintain, in a measure, its enviable place in the German market for some time to come. The indications are that our producers will have to divide their German trade with the German producers, and, as this competition will be sharp, it would be well for the former to exercise every possible precaution to sustain the popularity of the American product in the European markets.

**American pork in Spain.**—Minister Fairchild, writing to the Department of State under date of July 16, 1881, states that American pork is admitted into Spain under the restrictions contained in the royal decree of July 10, 1880, of which the following is a translation:

His excellency the MINISTER OF HACIENDA:

An account having been given to His Majesty of the application made by various merchants and industrials of Valladolid, Cartagena, Santander, and of Madrid, soliciting the abrogation of the royal order of February 28 ultimo, which prohibited the introduction into Spain of pork and pork grease proceeding from the United States

of America and Germany, and the grounds upon which their petitions were based having been attentively examined; and whereas the observance of said royal decree has brought about a remarkable rise in the price of the alimentary substances above referred to; and whereas in the fusion (melting) of the grease no trichina is found to exist; and as it is easily recognized with the microscope in the lean parts of pork, as in other meats; and as the same examination, when made, of the greases obtained by pressure does not give the assurances that they are free from the said parasite; and—

Considering that the rise experienced in the prices of pork and pork grease shows the insufficiency of the national production to meet the public consumption and deprives the poorer class of a most necessary food; and considering how difficult it is to avoid fraud, on account of the impossibility of proving the country of production when they come from non-prohibited places; and considering that a guarantee must be given to public health without injuring the interests of commerce, His Majesty the King, having heard the opinion of the royal board of health, has deigned to decree as follows:

1. The royal order of 28th February ultimo, which prohibits the introduction of pork and pork grease proceeding from the United States of America and Germany is annulled.

2. Only the prohibition regarding the greases coming from the United States which have not been obtained through melting will continue in force.

3. All meats which may be introduced shall be subjected to a scrupulous and microscopic inspection, and all that which contains trichina or is injurious to health shall be destroyed.

4. The inspection shall be made by a farrier of superior category appointed by the gobernador of the province and paid by the importers in accordance with the following tariff.

5. The introduction of said meats and greases shall only be effected through the first class customs.

6. The foregoing provisions will be applied to meats and greases already imported and pending clearance at the custom-houses.

By royal order I communicate this to your excellency for your information, and in order that the necessary orders to the above effect may be given by the ministry under your worthy charge.

God guard your excellency many years.

Madrid, July 10, 1880.

FRANCISCO ROMERO ROBLEDÓ.

*Tariff for the payment of fees for the inspection of pork which may be imported from the United States of America and Germany.*—For each case containing from 80 to 100 hams, 2 pesetas; for each case containing from 250 to 300 shoulders, feet, legs, or tongues, 2 pesetas, 50 centimes; for each case of bacon (containing muscular fiber) of from 20 to 30 pieces, 1 peseta, 50 centimes.

Madrid, July 10, 1880.

Approved by me.

ROMERO.

**Cultivation of Orris Root in Tuscany.**—Consul Crosby writes to the Department under date of July 16, 1881, as follows:

The iris, or orris, root belongs to the family of *Tridaceæ*, a plant with leaves sword-shaped, growing upon three main stems, having tuberous roots. These roots are cut in strips, and millions of these pieces are used annually for cauterizing wounds, which helps suppuration; the acrid juice contained in the orris gives the sore a favorable irritation. The seeds of the *pseudo Acorus orris* are sometimes roasted as a substitute for coffee, and really are very good, wholesome, and palatable. Extracts from the leaves and bark make a good saffron coloring-matter, and vine-growers and merchants use it for a preparation for the inside of wine casks, which gives a certain violet taste or odor.

The orris is common to Tuscany, especially the *Gladiolus* (gladiola sword-grass), and *Gladiolus tristis*—the gladiolus known by botanists under the name of *Iris florentina*.

**Canadian Harvest, 1881.**—Under date of Montreal, September 28, 1881, Consul-General Smith sends to the Department of State the following information relative to the Canadian harvest of 1881, as compared with 1880 and 1879, prepared by the Grand Trunk Railway from the reports

of its various station-agents, and published in the Montreal Gazette, September 27, 1881:

REPORTS OF 1881.

	Fall wheat.	Spring wheat.	Oats.	Pease.	Barley.	Hay.
Above average .....	39	39	54	22	46	17
Average .....	36	51	69	39	56	59
Below average.....	11	9	4	19	5	51
Number of reports.....	86	99	127	80	107	127

REPORTS OF 1880.

Above average .....	11	5	40	19	22	51
Average .....	55	24	77	52	77	65
Below average.....	20	92	12	10	12	10
Number of reports.....	86	121	129	81	111	126

REPORTS OF 1879.

Above average .....	53	19	76	25	57	99
Average .....	40	57	68	53	61	45
Below average.....	2	66	5	21	6	11
Number of reports.....	95	142	149	99	114	155

**American Shipping at Bombay.**—Under date of Bombay, August 22, 1881, the United States consul informs the Department of State that “We are having a good monsoon, and the crops are thriving throughout the producing districts. This, in any event, will help American tonnage coming here, and American vessels are at present getting £2 per ton. This item is of importance to the American shipping interest, and should not be lost sight of by merchants and ship-owners at home.”

**Cereals in Germany**—harvests and imports from August 1, 1880, to August 1, 1881.—Under date of Bremen, September 1, 1881, Consul Grinnell reports that the *official statistics* show the production of *cereals* in the German Empire from August 1, 1880, to August 1, 1881, to be as follows:

	Bushels.
Wheat.....	106,052,066
Rye.....	198,501,000
Barley.....	100,122,793
Oats.....	295,968,960
Corn.....	427,320
Pease, beans, &c.....	29,059,443

Imports for the same period were:

	Bushels.
Wheat.....	17,000,760
Rye.....	28,593,340
Barley.....	14,424,358
Oats.....	14,536,915
Corn.....	19,175,656
Pease, beans, &c.....	1,521,512

The official report adds, with some (apparent) complacency, that “The duties collected on the importation of grain during the above period, amounted to about \$4,285,700, being very much more than the estimates made in 1879.”

Consul Grinnell says that he thinks these figures are of value, showing as they do the growing need in Germany of the articles we can best supply, and especially as to corn; that as the Germans become more familiar with its excellence as food for man and animals, and its relative cheapness, "their demand will be only limited by the amount we can spare."

The tariff from which the above duties were collected went into effect July 8, 1879; it bears especially hard upon the laboring classes, except the farmers, and it is said that even they are dissatisfied. It seems certain that they are growing poorer year by year.

**French Harvests of 1881** (given to the press October 6).—Minister Morton, under date of Paris, September 13, 1881, reports on the condition of the French harvests for the current year, saying: From a comprehensive enumeration of the principal points and facts, from four or five French agricultural journals (figures from which do not differ essentially from those brought forward in official documents), the following approximations are reached:

*Rye* in sixty-nine departments: Eight very good; thirty-two good; thirteen fairly good; fourteen ordinary; one indifferent, and one bad.

*Barley* in sixty-one departments: Six very good; eighteen good; seventeen fairly good; fifteen ordinary; four bad, and one very bad.

*Oats* in seventy-seven departments: Six very good; twenty-one good; seventeen fairly good; twenty-four ordinary; eight bad, and one very bad.

*Maize*, twenty-three producing departments: Seven good; four fairly good; six ordinary, and six bad.

**Algerian Harvests are—**

*Wheat*.—Ordinary in the province of Constantine and bad in those of Algiers and Oran.

*Oats*.—Fairly good in Constantine and ordinary in Algiers.

*Maize*.—Bad in Oran.

*Barley*.—Ordinary in Algiers, bad in Constantine, and very bad in Oran.

A good harvest varies from 100,000,000 to 115,000,000 hectoliters, and moderate ones about 76,000,000 hectoliters.

This early in the season the figures are necessarily approximate estimates, yet it clearly appears that this year's harvests will be somewhat inferior to last year's, but considerably in advance of those of 1877, 1878, or 1879; probably 8,000,000 or 9,000,000 hectoliters less than 1880.

From the above an idea can be formed of what the French markets will be for home consumption and possible export.

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